



# ***STIC Search Report***

## ***Biotech-Chem Library***

**STIC Database Tracking Number: 130241**

**TO: Rebecca Cook  
Location: REM-4A65/3C70  
Art Unit: 1614  
August 20, 2004**

**Case Serial Number: 09/225499**

**From: P. Sheppard  
Location: Remsen Building  
Phone: (571) 272-2529**

**sheppard@uspto.gov**

### **Search Notes**

130241  
**SEARCH REQUEST FORM**

2-0571  
Requestor's Name: Helena Cook Serial Number: 09/225499  
Date: 9/1/04 Phone: (301) 413 670 Art Unit: 1614

**Search Topic:**

Please write a detailed statement of search topic. Describe specifically as possible the subject matter to be searched. Define any terms that may have a special meaning. Give examples or relevant citations, authors, keywords, etc., if known. For sequences, please attach a copy of the sequence. You may include a copy of the broadest and/or most relevant claim(s).

elements of  
Please search composition of claim 19  
separately & together for same purpose  
in forms of claims 22, 23 & 24.  
& ~~as a whole~~

search compound of claim 15

Thank you  
Helena Cook

Rush search authorized  
*Christopher S. F. Low*

CHRISTOPHER S. F. LOW  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1600

**STAFF USE ONLY**

Date completed: 9/2/04  
Searcher: Shapovalov  
Terminal time: \_\_\_\_\_  
Elapsed time: \_\_\_\_\_  
CPU time: \_\_\_\_\_  
Total time: \_\_\_\_\_  
Number of Searches: \_\_\_\_\_  
Number of Databases: \_\_\_\_\_

**Search Site**  
\_\_\_\_ STIC  
\_\_\_\_ CM-1  
\_\_\_\_ Pre-S  
**Type of Search**  
\_\_\_\_ N.A. Sequence  
\_\_\_\_ A.A. Sequence  
\_\_\_\_ Structure  
\_\_\_\_ Bibliographic

**Vendors**  
\_\_\_\_ IG  
\_\_\_\_ STN  
\_\_\_\_ Dialog  
\_\_\_\_ APS  
\_\_\_\_ Geninfo  
\_\_\_\_ SDC  
\_\_\_\_ DARC/Questel  
\_\_\_\_ Other

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FILE 'REGISTRY' ENTERED AT 15:58:14 ON 20 AUG 2004

L1 STR  
L2 20 S L1  
L5 3839 S L1 FUL  
L6 STR  
L7 226 SEARCH L6 SUB=L5 FUL  
L8 26319 S CYCLODEXTR?

FILE 'HCAPLUS' ENTERED AT 16:05:57 ON 20 AUG 2004

L9 1760 S L7  
L10 27247 S L8 OR ?CYCLODEXTR?

FILE 'REGISTRY' ENTERED AT 16:07:25 ON 20 AUG 2004

L12 10 S 5-ANDROSTENE-3.BETA.,17.BETA.-DIOL?/CN  
L13 3 S 5-ANDROSTENE-3.BETA.,17.ALPHA.-DIOL?/CN

FILE 'HCAPLUS' ENTERED AT 16:11:24 ON 20 AUG 2004

L14 1998 S (5(2W)?ANDROSTENE?)  
L17 1153 S 3(2W)BETA AND 17(W)ALPHA(2W)DIOL?  
L18 162 S L17 AND L14

FILE 'REGISTRY' ENTERED AT 16:13:50 ON 20 AUG 2004

SET SMARTSELECT ON  
L19 SEL L13 1- CHEM : 10 TERMS  
SET SMARTSELECT OFF

FILE 'HCAPLUS' ENTERED AT 16:13:51 ON 20 AUG 2004

L20 42 S L19  
L21 188 S L20 OR L18  
L22 37 S L9 AND (L10 OR CARRIER)  
L26 99 S L9 AND L21  
L27 2 S L22 AND L26 ← Structure ⊕ (cyclodextrin or carrier) + 5-androstene-3 $\beta$ ,17 $\alpha$ -diol  
L28 106633 S (?TUMOR? OR ?CANCER? OR ?NEOPLAS?)(5N)(?MEDIC? OR ?PHARM? OR  
L29 232 S L10 AND L28  
L30 85 S L29 AND PD= < APRIL 10, 1997 ✓ Cyclodextrin + utility + mode of administration  
L31 8 S L30 AND (?PARENTER? OR ?BUCCAL? OR ?SUBLING? OR ?ENDOTRACH? OR  
L32 706 S L10(L)(TABLET OR CAPSULE)  
L33 3 S L28 AND L32 AND PD= < APRIL 10, 1997 ← cyclodextrin + utility + form  
L34 15 S L9 AND L28  
L35 3 S L34 AND PD= < APRIL 10, 1997  
L36 3 S L35 NOT (L31 OR L27 OR L33) ← structure + utility  
L37 1 S L9(L)(TABLET OR CAPSULE)  
L38 1 S L37 NOT (L31 OR L27 OR L33 OR L36) ← structure + form  
L39 13 S L9 AND (?PARENTER? OR ?BUCCAL? OR ?SUBLING? OR ?ENDOTRACH? OR  
L40 12 S L39 NOT (L31 OR L27 OR L33 OR L36 OR L38) ← structure + mode of administration  
L41 2 S L40 AND PD= < APRIL 10, 1997  
L42 175 S L21 AND PD= < APRIL 10, 1997 5-androstene-3 $\beta$ ,17 $\alpha$ -diol  
L43 2 S (L42 AND (?PARENTER? OR ?BUCCAL? OR ?SUBLING? OR ?ENDOTRACH? ← + mode of admin.  
L44 1 S L42 AND (TABLET OR CAPSULE)  
L45 0 S L44 NOT (L31 OR L27 OR L33 OR L36 OR L38 OR L40 OR L43) + form  
L46 5 S L21 AND L28  
L47 1 S L46 NOT (L31 OR L27 OR L33 OR L36 OR L38 OR L40 OR L43) + utility

5-androstene-3 $\beta$ ,17 $\alpha$ -diol

=> fil hcaplus  
 FILE 'HCAPLUS' ENTERED AT 16:31:09 ON 20 AUG 2004  
 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
 PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
 COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)

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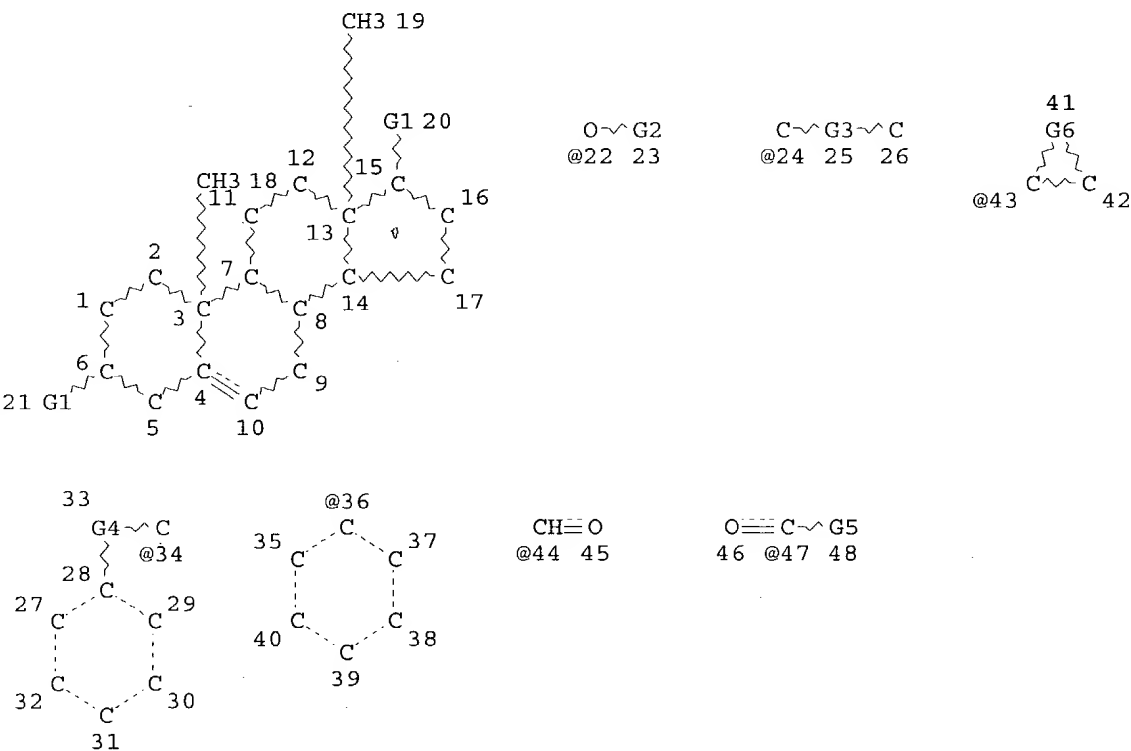
FILE COVERS 1907 - 20 Aug 2004 VOL 141 ISS 8  
 FILE LAST UPDATED: 18 Aug 2004 (20040818/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

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L1 STR

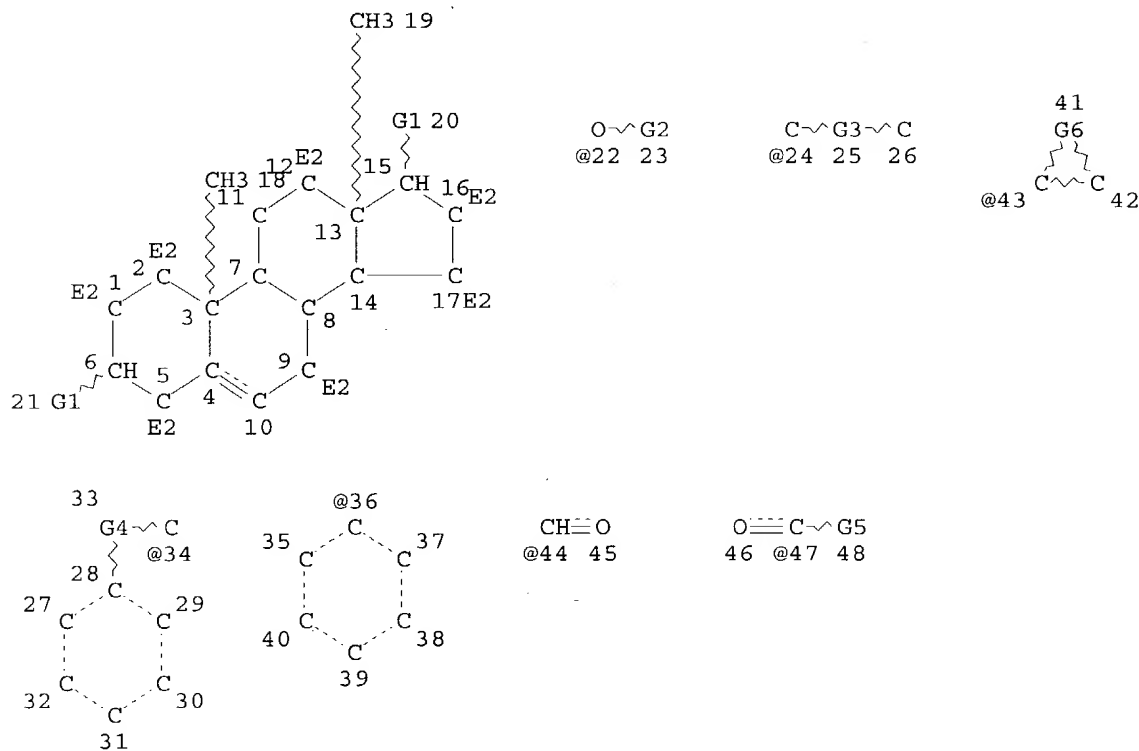


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 REP G3=(3-6) C  
 REP G4=(0-4) C

VAR G5=ME/ET/I-PR/N-PR/I-BU/N-BU/T-BU/S-BU/24/34/36/43  
 REP G6=(1-6) C  
 NODE ATTRIBUTES:  
 DEFAULT MLEVEL IS ATOM  
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
 RING(S) ARE ISOLATED OR EMBEDDED  
 NUMBER OF NODES IS 48

STEREO ATTRIBUTES: NONE  
 L5 3839 SEA FILE=REGISTRY SSS FUL L1  
 L6 STR



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 VAR G2=ME/ET/I-PR/N-PR/I-BU/N-BU/T-BU/S-BU/24/34/36/43/44/47  
 REP G3=(3-6) C  
 REP G4=(0-4) C  
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 REP G6=(1-6) C  
 NODE ATTRIBUTES:  
 HCOUNT IS E2 AT 1  
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 HCOUNT IS E2 AT 17  
 DEFAULT MLEVEL IS ATOM  
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
 RSPEC I  
 NUMBER OF NODES IS 48

## STEREO ATTRIBUTES: NONE

L7 226 SEA FILE=REGISTRY SUB=L5 SSS FUL L6  
 L8 26319 SEA FILE=REGISTRY ABB=ON PLU=ON CYCLODEXTR?  
 L9 1760 SEA FILE=HCAPLUS ABB=ON PLU=ON L7  
 L10 27247 SEA FILE=HCAPLUS ABB=ON PLU=ON L8 OR ?CYCLODEXTR?  
 L13 3 SEA FILE=REGISTRY ABB=ON PLU=ON 5-ANDROSTENE-3B,17.ALPHA  
 .-DIOL?/CN  
 L14 1998 SEA FILE=HCAPLUS ABB=ON PLU=ON (5(2W)?ANDROSTENE?)  
 L17 1153 SEA FILE=HCAPLUS ABB=ON PLU=ON 3(2W)BETA AND 17(W)ALPHA(2W)DI  
 OL?  
 L18 162 SEA FILE=HCAPLUS ABB=ON PLU=ON L17 AND L14  
 L19 SEL PLU=ON L13 1- CHEM : 10 TERMS  
 L20 42 SEA FILE=HCAPLUS ABB=ON PLU=ON L19  
 L21 188 SEA FILE=HCAPLUS ABB=ON PLU=ON L20 OR L18  
 L22 37 SEA FILE=HCAPLUS ABB=ON PLU=ON L9 AND (L10 OR CARRIER)  
 L26 99 SEA FILE=HCAPLUS ABB=ON PLU=ON L9 AND L21  
 L27 2 SEA FILE=HCAPLUS ABB=ON PLU=ON L22 AND L26

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=&gt; d ibib abs hitstr l27 1-2

L27 ANSWER 1 OF 2 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2002:716010 HCAPLUS

DOCUMENT NUMBER: 137:242464

TITLE: Treatment of tumors with steroids that interrupt  
 disturbances in Wnt signaling or provide an  
 angiostatic effect

INVENTOR(S): Hagstroem, Tomas

PATENT ASSIGNEE(S): Swed.

SOURCE: PCT Int. Appl., 54 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002072003	A2	20020919	WO 2002-SE443	20020311
WO 2002072003	A3	20030220		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
EP 1379542	A2	20040114	EP 2002-704017	20020311
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			
JP 2004524325	T2	20040812	JP 2002-570963	20020311
PRIORITY APPLN. INFO.:			SE 2001-857	A 20010313
			WO 2002-SE443	W 20020311

OTHER SOURCE(S): MARPAT 137:242464

AB The present invention relates to steroid derivs. for use as medicaments.

More specifically, the invention also relates to the use of a steroid derivative of **5-androstene-**, 5-pregnenolone or corresponding saturated derivs. (androstane- or pregnane-) in the manufacture of a medicament for the treatment of a benign and/or malignant tumor, which medicament is capable of interrupting disturbances in Wnt-signaling, such as cell-cycle arrest in G1-phase, and/or providing an angiostatic effect. Examples of such steroid derivs. are  $\Delta$ -5-

**androstene-17 $\alpha$ -ol**, androstane-17 $\alpha$ -ol, or pregnane-17 $\alpha$ -ol derivs. In a further aspect, the invention relates to a method of producing a medicament for the treatment of a benign and/or malignant tumor and/or an inflammatory condition comprising the steps of contacting 5-androstane-3 $\beta$   $\alpha$ , 17.

**alpha.-diol** or androstane-3.**beta**

. $\alpha$ -diol, an enzyme and a sulfotransferase to provide 5-

**androstene-17 $\alpha$ -ol- 3 $\beta$  -sulfate** or

corresponding androstane derivative (17 $\alpha$ -AEDS or 17-AADS); and mixing the 17 $\alpha$ -AEDS or 17 $\alpha$ -AADS so produced with a suitable

**carrier**; whereby a medicament which is capable of acting as a

ligand to peroxisome proliferator-activated receptor- $\gamma$  (PPAR $\gamma$ )

is produced. Pharmaceutical compns. containing the steroids plus other nuclear receptor ligands are also claimed.

IT 1963-03-7P, 5-Androstene-3

$\beta$ , 17 $\alpha$  -diol

RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP

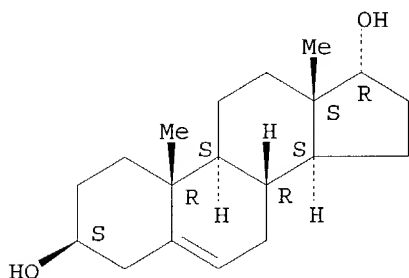
(Preparation); RACT (Reactant or reagent); USES (Uses)

(preparation of steroids that interrupt disturbances in Wnt signaling or provide an angiostatic effect for tumor treatment)

RN 1963-03-7 HCAPLUS

CN Androst-5-ene-3,17-diol, (3 $\beta$ ,17 $\alpha$ )- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 19213-05-9P

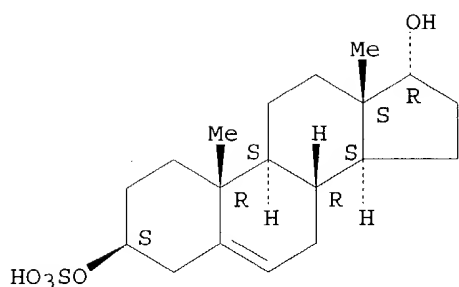
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of steroids that interrupt disturbances in Wnt signaling or provide an angiostatic effect for tumor treatment)

RN 19213-05-9 HCAPLUS

CN Androst-5-ene-3,17-diol, 3-(hydrogen sulfate), (3 $\beta$ ,17 $\alpha$ )- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 521-17-5P 2099-26-5P

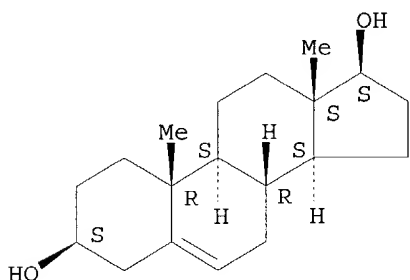
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of steroids that interrupt disturbances in Wnt signaling or provide an angiostatic effect for tumor treatment)

RN 521-17-5 HCAPLUS

CN Androst-5-ene-3,17-diol, (3β,17β)- (9CI) (CA INDEX NAME)

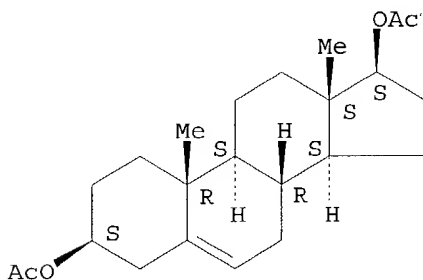
Absolute stereochemistry.



RN 2099-26-5 HCAPLUS

CN Androst-5-ene-3,17-diol, diacetate, (3β,17β)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L27 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1997:684284 HCAPLUS

DOCUMENT NUMBER: 127:322811

TITLE: 5-androstene-3.

beta.,17α -

diol as an inhibitor of tumor growth

INVENTOR(S): Loria, Roger M.

PATENT ASSIGNEE(S): Loria, Roger M., USA

SOURCE: PCT Int. Appl., 19 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9737662	A1	19971016	WO 1997-US5849	19970410
W: CA, JP				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
CA 2252110	AA	19971016	CA 1997-2252110	19970410
EP 925064	A1	19990630	EP 1997-920244	19970410
EP 925064	B1	20030625		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2000508643	T2	20000711	JP 1997-536454	19970410
AT 243518	E	20030715	AT 1997-920244	19970410
EP 1362591	A1	20031119	EP 2003-14193	19970410
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO				
PT 925064	T	20031128	PT 1997-920244	19970410
ES 2202606	T3	20040401	ES 1997-920244	19970410
PRIORITY APPLN. INFO.:				
			US 1996-15042P	P 19960411
			US 1996-18985P	P 19960604
			EP 1997-920244	A3 19970410
			WO 1997-US5849	W 19970410

OTHER SOURCE(S): MARPAT 127:322811

AB The invention provides means of accelerating cell aging and programmed cell death in tumor cells by administration of **3.beta**, 17 $\alpha$ -androstenediol ( $\alpha$ AED) or its ethers or esters. Pharmaceutical compns. containing **5-androstene-3**  $\beta$ , 17 $\alpha$ -diol and a second anticancer drug also are claimed.

IT **1963-03-7, 5-Androstene 3**  $\beta$ , 17 $\alpha$ -diol  
**1963-03-7D, 5-Androstene 3**  $\beta$ , 17 $\alpha$ -diol, ethers or esters **7585-39-9D,  $\beta$ -Cyclodextrin**, hydroxypropyl-, inclusion compound with **5-androstene-3 $\beta$ , 17 $\alpha$ -diol**  
**12619-70-4D, Cyclodextrin**, inclusion compound with **5-androstene-3 $\beta$ , 17 $\alpha$ -diol**

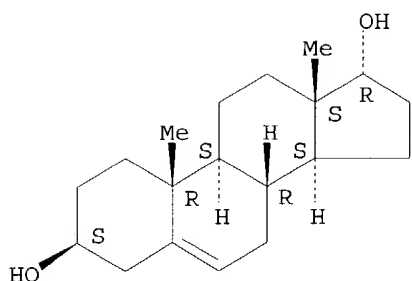
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(**5-androstene-3 $\beta$** , 17 $\alpha$ -diol as inhibitor of tumor growth)

RN 1963-03-7 HCAPLUS

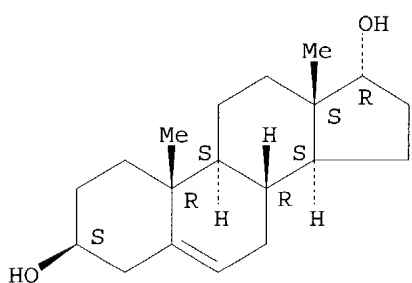
CN Androst-5-ene-3,17-diol, (3 $\beta$ ,17 $\alpha$ )- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 1963-03-7 HCAPLUS  
CN Androst-5-ene-3,17-diol, (3 $\beta$ ,17 $\alpha$ )- (9CI) (CA INDEX NAME)

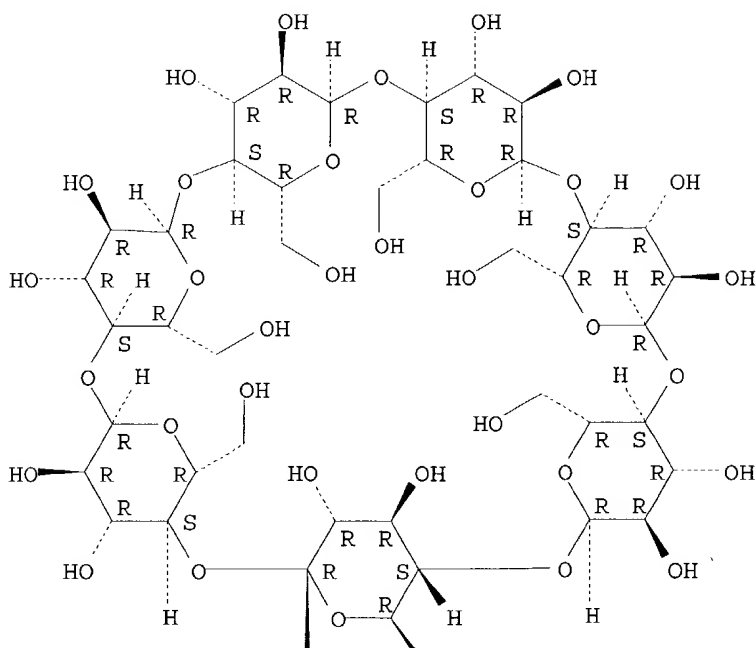
Absolute stereochemistry.



RN 7585-39-9 HCAPLUS  
CN  $\beta$ -Cyclodextrin (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A



RN 12619-70-4 HCAPLUS  
CN Cyclodextrin (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

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=> d stat que l31

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L10 27247 SEA FILE=HCAPLUS ABB=ON PLU=ON L8 OR ?CYCLODEXTR?  
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?NEOPLAS?) (5A) (?MEDIC? OR ?PHARM? OR ?DRUG? OR INHIBITOR OR  
?THERAP?)  
L29 232 SEA FILE=HCAPLUS ABB=ON PLU=ON L10 AND L28  
L30 85 SEA FILE=HCAPLUS ABB=ON PLU=ON L29 AND PD=<APRIL 10, 1997  
L31 8 SEA FILE=HCAPLUS ABB=ON PLU=ON L30 AND (?PARENTER? OR  
?BUCCAL? OR ?SUBLING? OR ?ENDOTRACH? OR ?AEROS?)

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=> d ibib abs hitstr l31 1-8

L31 ANSWER 1 OF 8 HCAPLUS COPYRIGHT 2004 ACS on STN  
ACCESSION NUMBER: 1997:623325 HCAPLUS  
DOCUMENT NUMBER: 127:272443  
TITLE: Methyl- $\beta$ - **cyclodextrin** in HL-60 parental  
and **multidrug**-resistant **cancer**  
cell lines. Effect on the cytotoxic activity and  
intracellular accumulation of doxorubicin  
AUTHOR(S): Grosse, Pierre Yves; Bressolle, Francoise; Pinguet,  
Frederic  
CORPORATE SOURCE: Department Oncological Pharmacology, Anticancer  
Center, Montpellier, F-34298, Fr.  
SOURCE: Cancer Chemotherapy and Pharmacology (1997),  
40(6), 489-494  
CODEN: CCPHDZ; ISSN: 0344-5704  
PUBLISHER: Springer  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
AB The role of methyl- $\beta$ - **cyclodextrin** (MEBCD) in combination  
with doxorubicin (DOX) was determined on the cellular proliferation of a  
sensitive **parenteral** and a **multidrug**-resistant human  
**cancer** cell line (HL-60 S and HL-60 R) and the effect of MEBCD on  
DOX intracellular accumulation was studied. The cytotoxicity of DOX at 5  
concns. (50-50,000 nM) was evaluated with or without the coadministration  
of 4 fixed noncytotoxic concns. of MEBCD (100, 200, 500, and 1,000  $\mu$ M).  
MEBCD applied at 500 and 1,000  $\mu$ M combination with DOX potentiated the  
activity of DOX used alone on both sensitive and multidrug-resistant cell  
lines; IC50 ratios (IC50 MEBCD-DOX/ IC50DOX) were about 3:4 and 1.6:4 for

HL-60 S and HL-60 R, resp. Moreover, intracellular DOX accumulation, during 6 h of drug exposure, was about 2-4 + higher for cells treated with MEBCD in combination with DOX than in those treated with DOX alone.

IT 7585-39-9D,  $\beta$ - Cyclodextrin, Me ethers

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

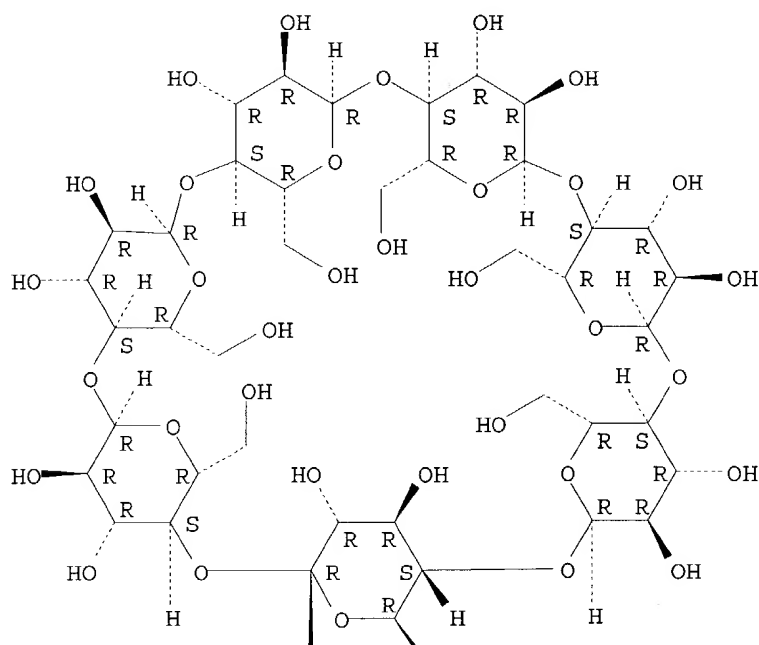
(effect on the cytotoxic activity and intracellular accumulation of doxorubicin)

RN 7585-39-9 HCAPLUS

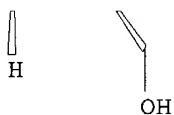
CN  $\beta$ -Cyclodextrin (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A



L31 ANSWER 2 OF 8 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1995:828999 HCAPLUS

DOCUMENT NUMBER: 123:265928

TITLE: Effect of SBE4- $\beta$ -CD, a sulfobutyl ether  $\beta$ -cyclodextrin, on the stability and solubility of 06-benzylguanine (NSC-637037) in aqueous solutions  
Gorecka, Barbara A.; Sanzgiri, Yeshwant D.; Bindra, Dilbir S.; Stella, Valentino J.

AUTHOR(S):

CORPORATE SOURCE: Department of Pharmaceutical Chemistry and Center for

Drug Delivery Research, University of Kansas,  
Lawrence, KS, 66045, USA

SOURCE: International Journal of Pharmaceutics (1995  
) , 125(1), 55-61

CODEN: IJPHDE; ISSN: 0378-5173

PUBLISHER: Elsevier

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The effect of SBE4- $\beta$ -CD, a sulfobutyl ether derivative of  $\beta$ -**cyclodextrin** on the solubility and aqueous hydrolysis of the **antitumor drug** O6-benzylguanine (BG) was studied. SBE4- $\beta$ -CD is an apparently **parenterally** safe anionic  $\beta$ - **cyclodextrin** derivative with superior solubilizing properties in water. BG has poor aqueous solubility and undergoes rapid hydrolysis to the poorly water soluble guanine. The stability of a **parenteral** BG formulation was studied after storage at 25, 37 and 50°. Compared to the intrinsic solubility of BG (0.14 mg/mL, 25°), 0.05 M SBE4- $\beta$ -CD enhanced its solubility to 2.9 mg/mL at 25° and 3.9 mg/mL at 50°. Solubility data yielded binding consts. (Kb) of 565 M<sup>-1</sup> at 25° and 342 M<sup>-1</sup> at 50°. The solubility of guanine was only slightly enhanced by SBE4- $\beta$ -CD. Hydrolysis kinetics of BG were studied at 50° over a pH range of 1-9 and the maximum stability was observed at pH 8-8.5. In the presence of 0.05M SBE4- $\beta$ -CD, hydrolysis was about 9.5-times slower at pH 1, 14.6-times slower at pH 6 and 10-times slower at pH 8. The effect of SBE4- $\beta$ -CD concentration was studied at pH 2.2 and 4.8 at 50°. Hydrolysis rate consts. decreased with increasing SBE4- $\beta$ -CD concns. A non-linear regression anal. of this data yielded Kb values of 311 and 270 M<sup>-1</sup> at pH 2.2 and 4.8, resp. A formulation containing 2.5 mg/mL of BG and 0.05 M SBE4- $\beta$ -CD in a pH 8 phosphate buffer was stored in ampoules at 25, 37 and 50°. Guanine production in the samples was measured since its low solubility (2.5  $\mu$ g/mL) imposed a limitation on the shelf life. Guanine levels exceeded its apparent solubility after 1-2 mo of storage at 50°. At 37° guanine levels were only 1.6  $\mu$ g/mL after 343 days of storage whereas those at 25° were negligible and below the limit of quantitation (approx. 0.1  $\mu$ g/mL). The greater stability at room temperature may be attributed to the higher Kb value observed and greater intrinsic stability of BG in the complex.

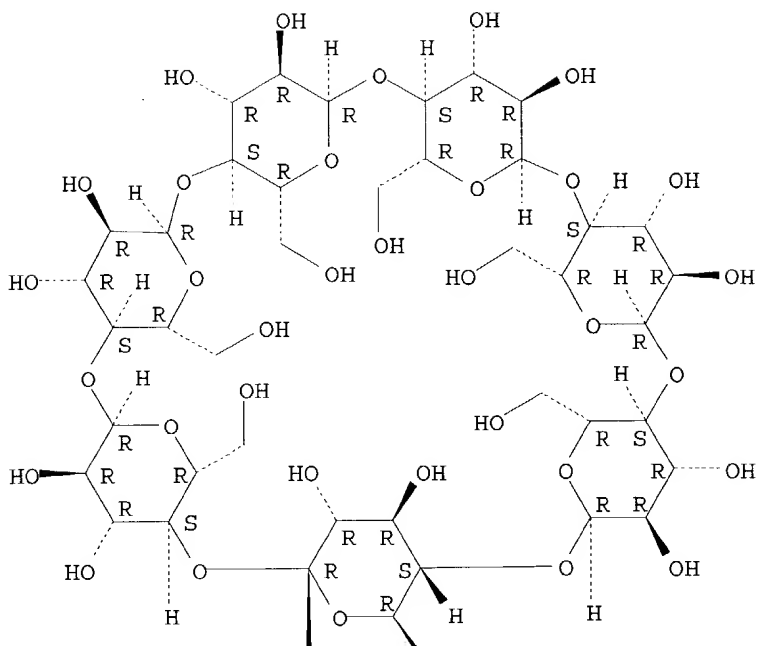
IT **7585-39-9D**,  $\beta$ - **Cyclodextrin**, sulfobutyl ether  
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
( $\beta$ - **cyclodextrin** sulfobutyl ether effect on stability and  
solubility of benzylguanine in **parenteral** solns.)

RN 7585-39-9 HCAPLUS

CN  $\beta$ -Cyclodextrin (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A



L31 ANSWER 3 OF 8 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1994:465430 HCAPLUS

DOCUMENT NUMBER: 121:65430

TITLE: Pharmaceutical evaluation of branched  $\beta$ -cyclodextrins as drug carriers in parenteral formulation

AUTHOR(S): Uekama, K.; Yamamoto, M.; Irie, T.; Hirayama, F.

CORPORATE SOURCE: Fac. Pharm. Sci., Kumamoto Univ., Kumamoto, 862, Japan

SOURCE: Minutes Int. Symp. Cyclodextrins, 6th (1992), 491-6. Editor(s): Hedges, Allan R. Ed. Sante: Paris, Fr.

CODEN: 60BCAL

DOCUMENT TYPE: Conference

LANGUAGE: English

AB The physicochem. and biopharmaceutical properties of the branched  $\beta$ -cyclodextrins were evaluated and their inclusion characteristics were compared with those of hydrophilic  $\beta$ -cyclodextrin ( $\beta$ -CyD) analogs. Then, advantage of maltosyl- $\beta$ -cyclodextrin (G2- $\beta$ -CyD) in parenteral formulations of prostaglandin E1 (PGE1) and polypeptide drugs such as insulin and tumor necrosis factor (TNF) was discussed.

IT 7585-39-9,  $\beta$ -Cyclodextrin  
RL: BIOL (Biological study)

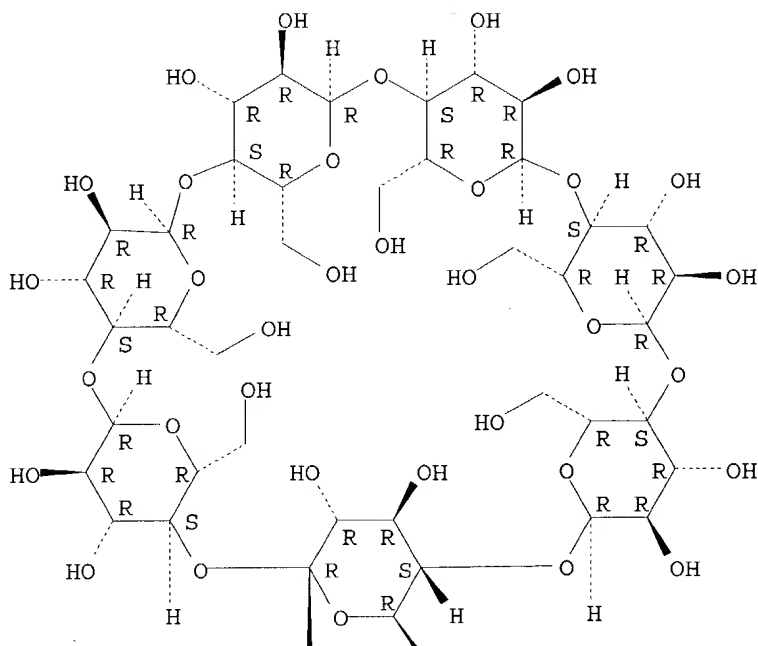
(carrier for **parenteral** formulations, branched compds. in relation to)

RN 7585-39-9 HCAPLUS

CN  $\beta$ -Cyclodextrin (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A



IT 92517-02-7, Glucosyl  $\beta$ - cyclodextrin  
 104723-60-6, Maltosyl  $\beta$ - cyclodextrin  
 107035-66-5, Dimaltosyl- $\beta$ - cyclodextrin  
 RL: BIOL (Biological study)

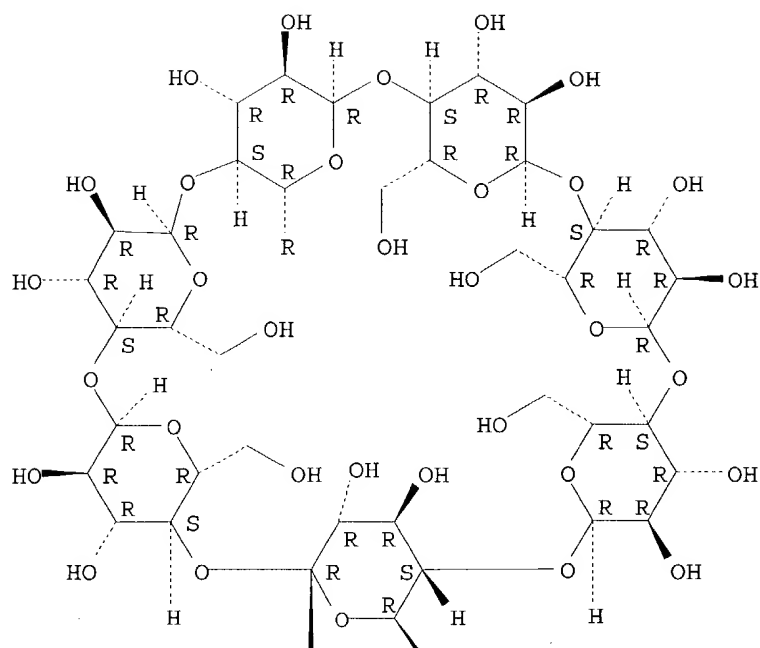
(carrier for **parenteral** formulations, properties of)

RN 92517-02-7 HCAPLUS

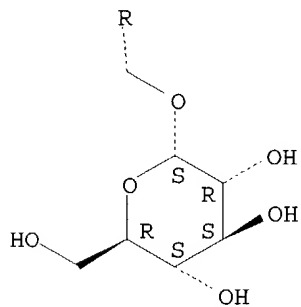
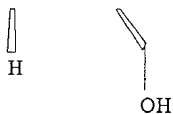
CN  $\beta$ -Cyclodextrin, O- $\alpha$ -D-glucopyranosyl-(1 $\rightarrow$ 6A)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



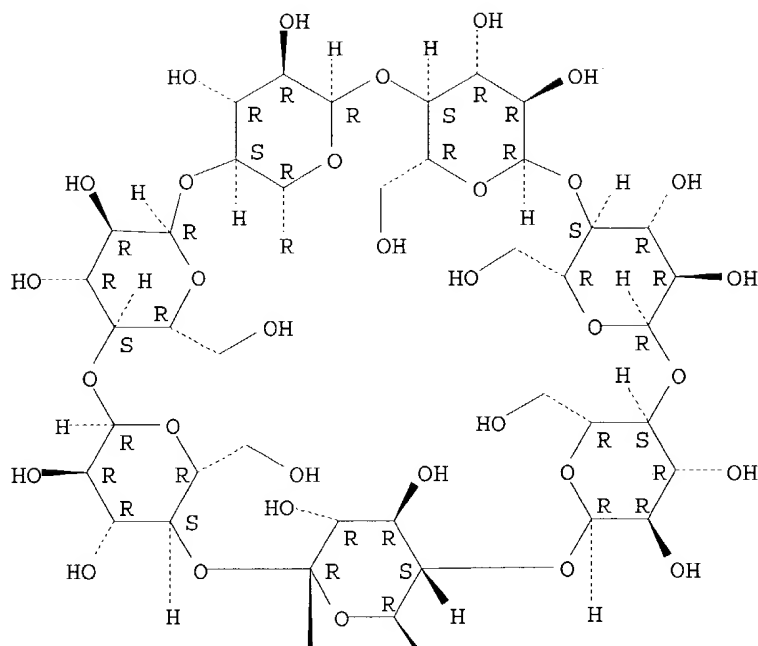
PAGE 2-A



RN 104723-60-6 HCAPLUS  
 CN  $\beta$ -Cyclodextrin, O- $\alpha$ -D-glucopyranosyl-(1 $\rightarrow$ 4)-O- $\alpha$ -D-glucopyranosyl-(1 $\rightarrow$ 6A)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

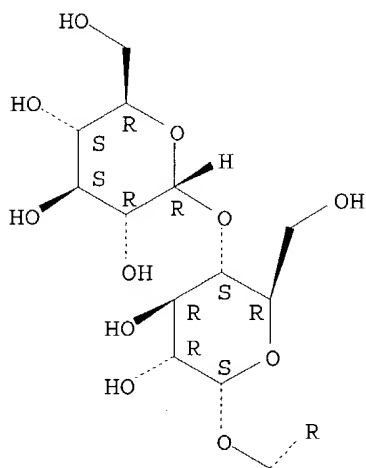
PAGE 1-A



PAGE 2-A



PAGE 3-A

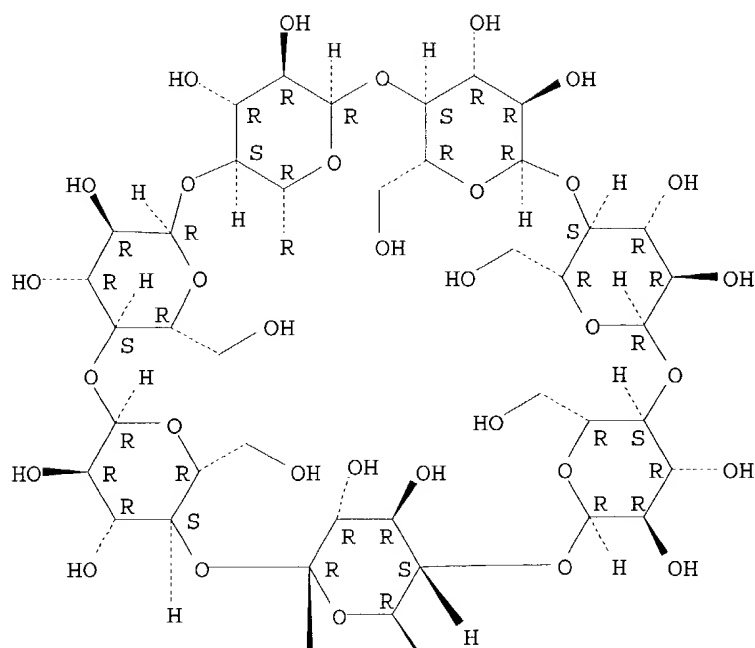


RN 107035-66-5 HCAPLUS  
 CN  $\beta$ -Cyclodextrin, O- $\alpha$ -D-glucopyranosyl-(1 $\rightarrow$ 4)-O- $\alpha$ -D-glucopyranosyl-(1 $\rightarrow$ 6A)-O-[O- $\alpha$ -D-glucopyranosyl-(1 $\rightarrow$ 4)-

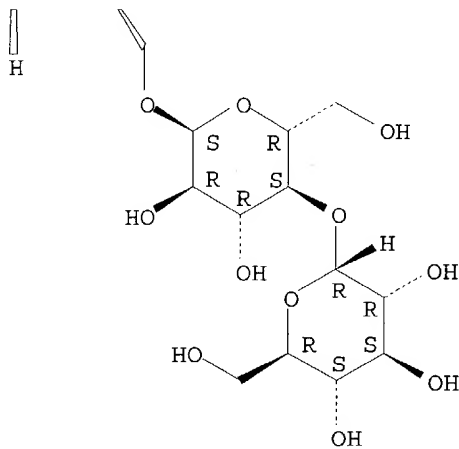
$\alpha$ -D-glucopyranosyl-(1 $\rightarrow$ 6D)]- (9CI) (CA INDEX NAME)

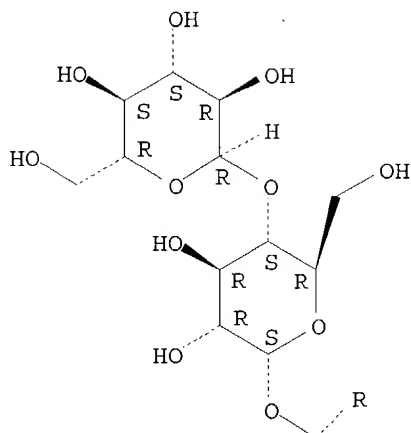
Absolute stereochemistry.

PAGE 1-A



PAGE 2-A





L31 ANSWER 4 OF 8 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1993:503357 HCAPLUS

DOCUMENT NUMBER: 119:103357

TITLE: **Drug formulations for parenteral use in cancer therapy**

INVENTOR(S): Jalonen, Harry Gosta; Heikkila, Terttu Marita; Jalonen, Hannu Uolevi; Kangas, Lauri Veikko Matti; Lammintausta, Risto Arvo Sakari; Kurkela, Kauko Oiva Antero

PATENT ASSIGNEE(S): Orion-Yhtymä Oy, Finland

SOURCE: PCT Int. Appl., 15 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9311757	A1	19930624	WO 1992-FI339	19921210 <--
W: AU, BG, CA, CS, FI, HU, JP, KR, NO, NZ, PL, PT, RO, RU, UA, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
AU 9331599	A1	19930719	AU 1993-31599	19921210 <--
AU 667861	B2	19960418		
ZA 9209592	A	19930806	ZA 1992-9592	19921210 <--
EP 616529	A1	19940928	EP 1993-900114	19921210 <--
EP 616529	B1	19970312		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
JP 07501813	T2	19950223	JP 1992-510650	19921210 <--
AT 149828	E	19970315	AT 1993-900114	19921210 <--
NO 9402155	A	19940610	NO 1994-2155	19940609 <--
FI 9402728	A	19940610	FI 1994-2728	19940610 <--
US 5571534	A	19961105	US 1994-244549	19940707 <--
PRIORITY APPLN. INFO.:			GB 1991-26209	A 19911210
			WO 1992-FI339	A 19921210

AB A **parenteral** formulation is prepared in the form of an emulsion or liposome containing active agent selected from the group consisting of toremifene, desmethyl toremifene, tamoxifen, and desmethyltamoxifen or a pharmaceutically acceptable nontoxic salt thereof.

IT **7585-39-9D,  $\beta$ - Cyclodextrin**, complexes with **antitumor drugs 17465-86-0D,  $\gamma$ -**

**Cyclodextrin**, complexes with **antitumor drugs**

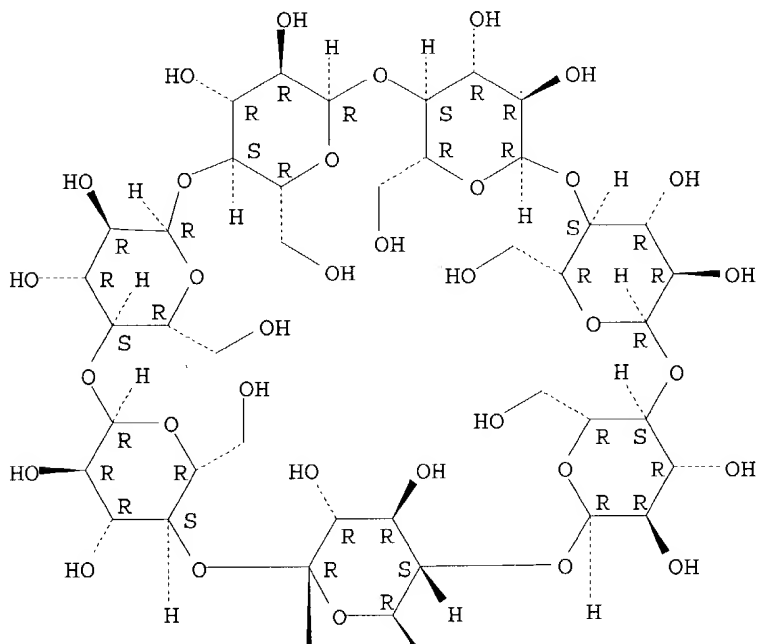
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (pharmaceuticals containing, parenteral)

RN 7585-39-9 HCAPLUS

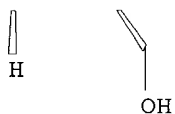
CN  $\beta$ -Cyclodextrin (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

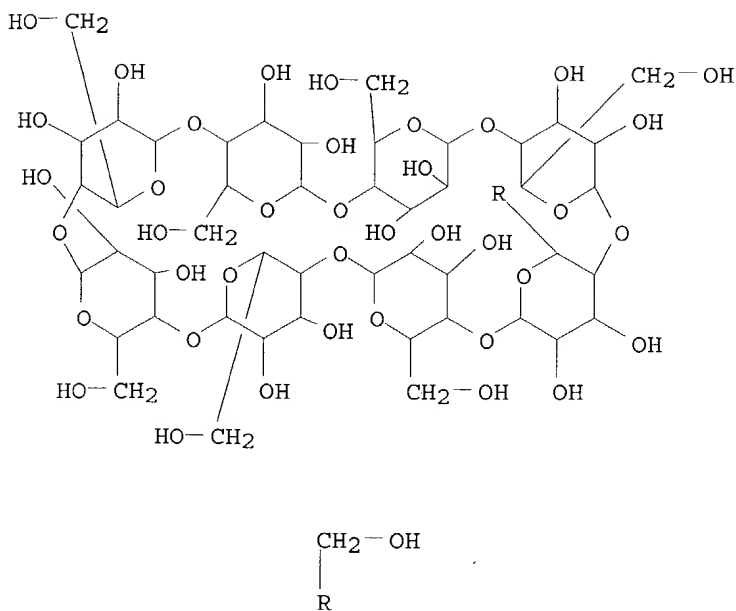


PAGE 2-A



RN 17465-86-0 HCAPLUS

CN  $\gamma$ -Cyclodextrin (8CI, 9CI) (CA INDEX NAME)



L31 ANSWER 5 OF 8 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1993:51306 HCAPLUS

DOCUMENT NUMBER: 118:51306

TITLE: Platinum complexes with phenylalkylethylenediamine ligands

INVENTOR(S): Brunner, Henri; Hankofer, Peter; Maiterth, Friedrich; Engel, Juergen; Schumacher, Wolfgang; Hilgard, Peter; Voegeli, Rainer

PATENT ASSIGNEE(S): Asta Pharma A.-G., Germany

SOURCE: Eur. Pat. Appl., 45 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: German

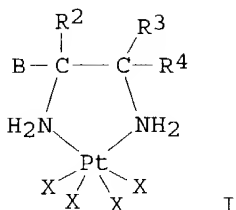
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 451753	A1	19911016	EP 1991-105514	19910408 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE				
JP 07112994	A2	19950502	JP 1991-69854	19910402 <--
DE 4111249	A1	19920206	DE 1991-4111249	19910408 <--
NO 9101373	A	19911011	NO 1991-1373	19910409 <--
FI 9101698	A	19911011	FI 1991-1698	19910409 <--
AU 9174244	A1	19911017	AU 1991-74244	19910409 <--
HU 57788	A2	19911230	HU 1991-1145	19910409 <--
ZA 9102630	A	19920129	ZA 1991-2630	19910409 <--
CA 2040123	AA	19911011	CA 1991-2040123	19910410 <--
US 5194644	A	19930316	US 1991-683431	19910410 <--
NO 9204063	A	19911011	NO 1992-4063	19921020 <--
NO 9204064	A	19911011	NO 1992-4064	19921020 <--
US 5238955	A	19930824	US 1992-981475	19921125 <--
PRIORITY APPLN. INFO.:			DE 1990-4011520	19900410
			NO 1991-1373	19910409
			US 1991-683431	19910410

OTHER SOURCE(S): MARPAT 118:51306

GI



AB The title complexes are described by the general formula I (B = a pH-C1-4 alkyl residue which may optionally have a R1 substituent in the Ph group with R1 = H, a halogen, a trihalomethyl, a C1-6 alkyl, a hydroxy, a C1-6 alkoxy, or a C2-6 alkanoyloxy group, in which B along with the H2N-CR2 segment forms a tetrahydroisoquinoline residue with B = benzyl, R2 = H, and with the CH2 group in the 2 position on the benzyl residue, in which B along with the -CR2 segment forms a tetrahydronaphthyl residue in which 1 of the CH2 groups may be replaced by O, or in which B together with the -CR2 segment forms a decahydronaphthyl or indanyl residue; R2 = H, a C1-6 alkyl, a Ph, or a Ph-C1-4 alkyl group in which the Ph ring may be substituted with a halogen, hydroxy, C1-4 alkoxy, C1-4 alkyl, or C2-6 alkanoyloxy group; R3 and R4 are the same or different groups selected from H, C1-12 alkyl, C3-8 cycloalkyl, and (optionally C1-6 alkoxy-substituted) Ph groups; and X = H2O or a physiolog. acceptable anion; with the restriction that  $\geq 1$  of R2, R3, and R4 is not H when B = a substituted or unsubstituted benzyl group. For Pt(II) complexes, 2 of the X's may be absent. Preparation of the ligands entails reduction of selected precursors. Preparation of the complexes entails reaction of a tetrahaloplatinic acid, a tetrahalo-Pt(II) complex, or a Pt(II) halide with the ligand or an acid addition salt of the ligand, optionally oxidizing to produce a Pt(IV) compound, and exchanging any anions for physiolog. acceptable anions. **Therapeutic agents (e.g., antitumor drugs)** containing the Pt complexes and methods for preparing them are also described.

IT 10016-20-3,  $\alpha$ -Cyclodextrin

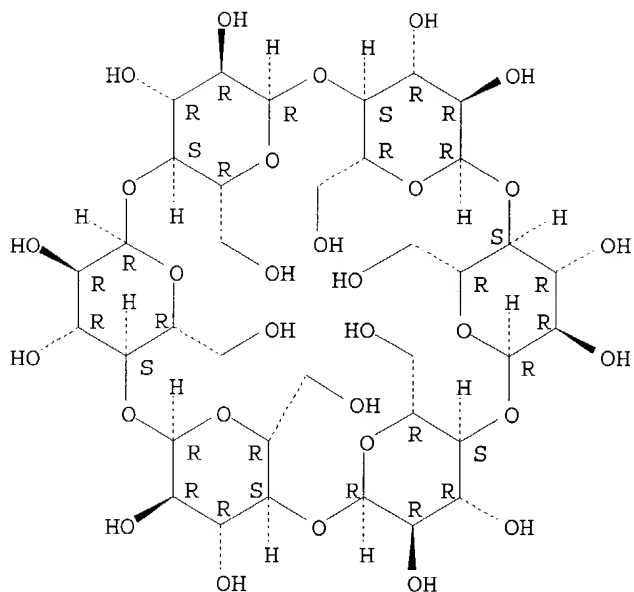
RL: RCT (Reactant); RACT (Reactant or reagent)

(in platinum complex-containing therapeutic material preparation)

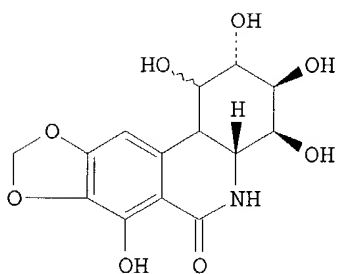
RN 10016-20-3 HCAPLUS

CN  $\alpha$ -Cyclodextrin (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



L31 ANSWER 6 OF 8 HCAPLUS COPYRIGHT 2004 ACS on STN  
 ACCESSION NUMBER: 1992:27959 HCAPLUS  
 DOCUMENT NUMBER: 116:27959  
 TITLE: Oversaturated solutions of drugs in hydroxypropyl  
**cyclodextrins, parenteral**  
 preparations of pancratistatin  
 AUTHOR(S): Torres-Labandeira, J. J.; Pitha, J.  
 CORPORATE SOURCE: NIA, Natl. Inst. Health, Baltimore, MD, 21224, USA  
 SOURCE: Minutes Int. Symp. Cyclodextrins, 5th (1990)  
 , 495-8. Editor(s): Duchene, Dominique. Ed. Sante:  
 Paris, Fr.  
 CODEN: 57LSAJ  
 DOCUMENT TYPE: Conference  
 LANGUAGE: English  
 GI



I

AB The effects of 15 **cyclodextrin** derivs. (electroneutral-polar or nonpolar, cationic, and anionic) and 3 2-hydroxypropyldigitonins on the solubility of pancratistatin (I), an anti-**cancer drug**, were evaluated. The direct solubilization into aqueous solns. was invariably low (0.1-1.2 mg/mL in water). Complexes of I with hydroxypropyl  $\beta$ -**cyclodextrin** were more stable (Kapp 153 M-1) than those with hydroxypropyl  $\gamma$ -**cyclodextrin** (Kapp 108 M-1). When solid

amorphous complexes of I with a large excess (1:50 weight/weight) of hydroxypropyl **cyclodextrins** were made, i.e. both inclusion and interdispersed in the **cyclodextrin** network were operative, these dissolved rapidly forming clear solns. of I of concns. up to 9 mg/mL. These solns. were oversatd. and while those based on hydroxypropyl  $\beta$ -**cyclodextrin** precipitated within an hour, those based on hydroxypropyl  $\gamma$ -**cyclodextrin** were stable when kept in a plastic container, i.e., for at least 4 h, enough for the potential use in **parenteral** preps.

IT 7585-39-9D,  $\beta$ - **Cyclodextrin**, hydroxypropyl ether

12619-70-4, **Cyclodextrin** 17465-86-0D,  $\gamma$ -

**Cyclodextrin**, hydroxypropyl ether

RL: BIOL (Biological study)

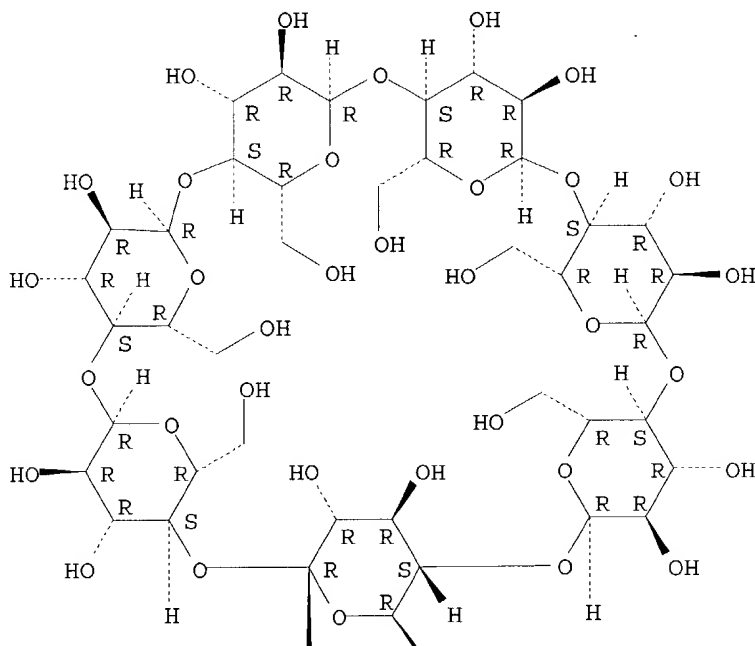
(pancratistatin solubilization by, for oversatd. **parenteral** solns.)

RN 7585-39-9 HCAPLUS

CN  $\beta$ -Cyclodextrin (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A

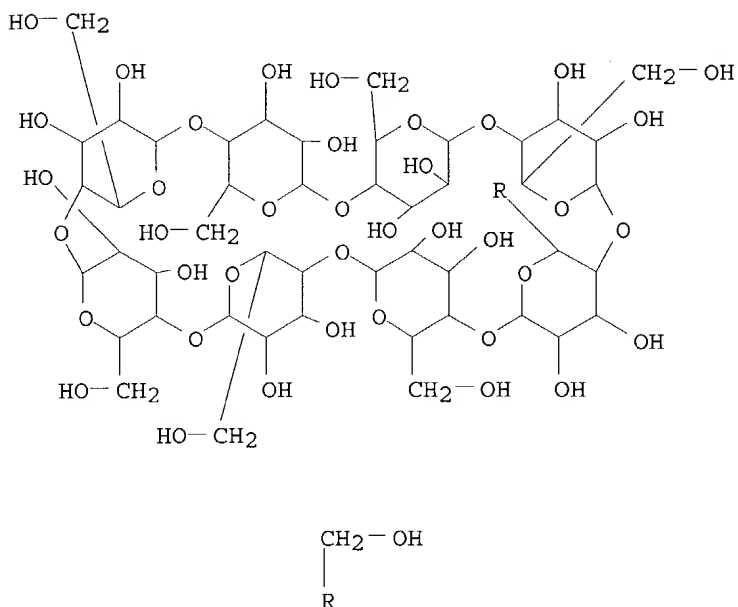


RN 12619-70-4 HCAPLUS

CN Cyclodextrin (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 17465-86-0 HCAPLUS

CN  $\gamma$ -Cyclodextrin (8CI, 9CI) (CA INDEX NAME)

L31 ANSWER 7 OF 8 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1991:435645 HCAPLUS

DOCUMENT NUMBER: 115:35645

TITLE: Oversaturated solutions of drug in hydroxypropyl  
**cyclodextrins: parenteral**  
 preparation of pancratistatin

AUTHOR(S): Torres-Labandeira, Juan J.; Davignon, Paul; Pitha,  
 Josef

CORPORATE SOURCE: Health NIA, Natl. Inst., Baltimore, MD, 21224, USA

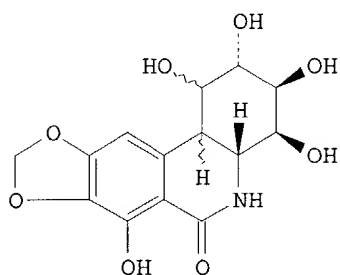
SOURCE: Journal of Pharmaceutical Sciences (1991),  
 80(4), 384-6

CODEN: JPMSAE; ISSN: 0022-3549

DOCUMENT TYPE: Journal

LANGUAGE: English

GI

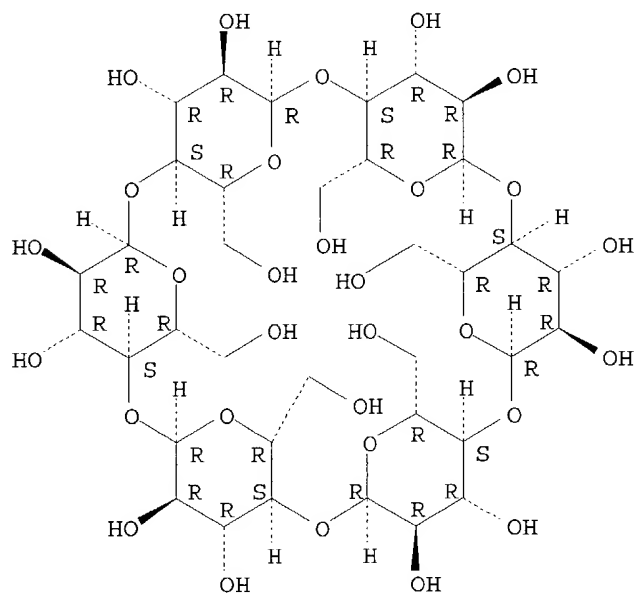


AB The effect of 15 **cyclodextrin** derivs. (polar-electroneutral, cationic, anionic, and lipophilic) and of three 2-hydroxypropyldigitonins on the solubility of pancratistatin (I), an **anticancer drug**, was evaluated. The direct solubilization into aqueous solns. were

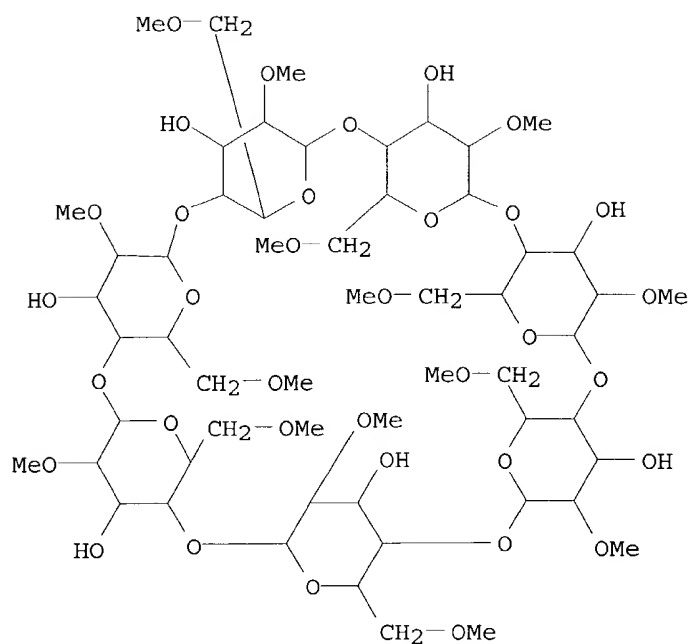
invariably low (0.1-1.2 mg/mL compared with 50 µg/mL in water). Complexes of I with hydroxypropyl β- **cyclodextrin** were more stable (Kapp 153 M-1) than those with hydroxypropyl γ- **cyclodextrin** (Kapp 108 M-1). Acceptable preps. were made by dissoln. of I in a large excess (50+) of hydroxypropyl **cyclodextrin** by ammonia and then freeze drying to ammonia-free preps. In these preps., both the inclusion and interdispersion phenomena were operative, and the preps. dissolved rapidly forming clear solns. of I of concns. up to 9 mg/mL. These solns. were oversatd. and while those based on hydroxypropyl β- **cyclodextrin** precipitated within 1 h, those based on hydroxypropyl γ- **cyclodextrin** were stable for at least 4 h when kept in a plastic container (i.e., time sufficient for potential use in **parenteral** preps.).

IT 10016-20-3D, α- **Cyclodextrin**, ethers with  
diethylaminoethanol 51166-71-3 55216-11-0,  
2,3,6-O-Trimethyl-β- **cyclodextrin** 104723-60-6  
RL: BIOL (Biological study)  
(pancratistatin solubilization by, for **parenteral** solution)  
RN 10016-20-3 HCAPLUS  
CN α-Cyclodextrin (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 51166-71-3 HCAPLUS  
CN β-Cyclodextrin, 2A,2B,2C,2D,2E,2F,2G,6A,6B,6C,6D,6E,6F,6G-tetradeca-O-methyl- (9CI) (CA INDEX NAME)

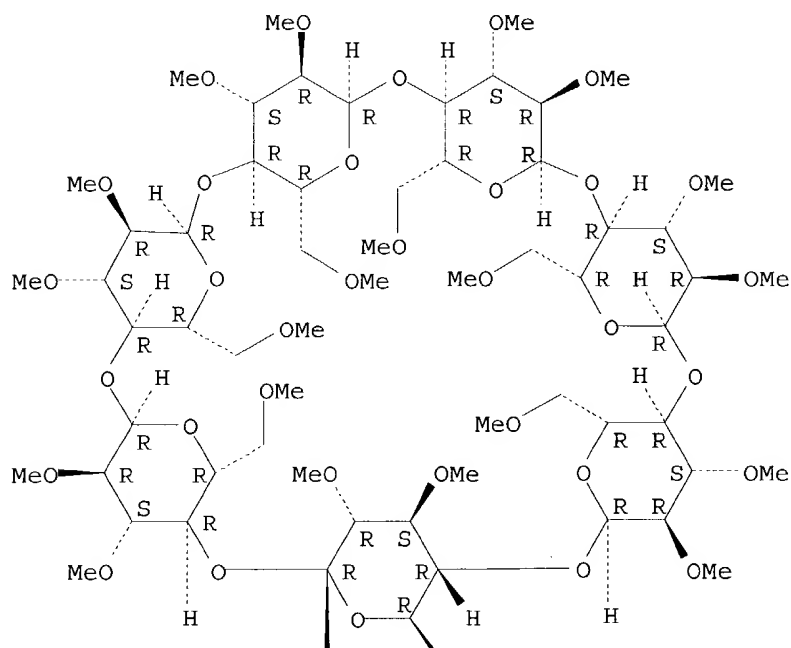


RN 55216-11-0 HCAPLUS

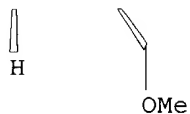
CN  $\beta$ -Cyclodextrin, 2A,2B,2C,2D,2E,2F,2G,3A,3B,3C,3D,3E,3F,3G,6A,6B,6C,6D,6E,6F,6G-heneicosa-O-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



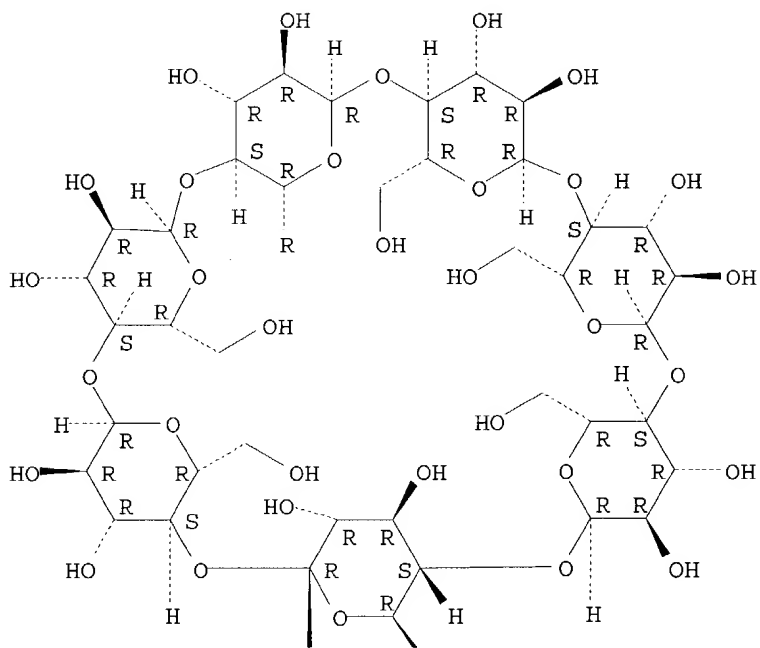
PAGE 2-A



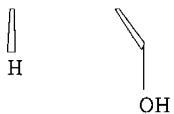
RN 104723-60-6 HCAPLUS  
 CN  $\beta$ -Cyclodextrin, O- $\alpha$ -D-glucopyranosyl-(1 $\rightarrow$ 4)-O- $\alpha$ -D-glucopyranosyl-(1 $\rightarrow$ 6A)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

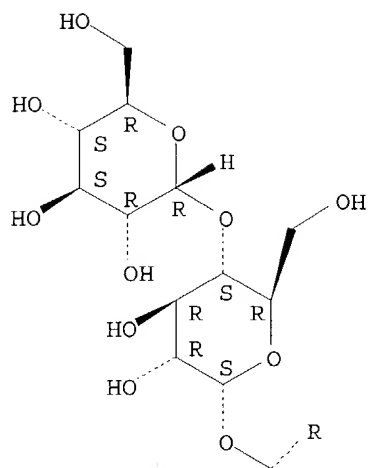
PAGE 1-A



PAGE 2-A



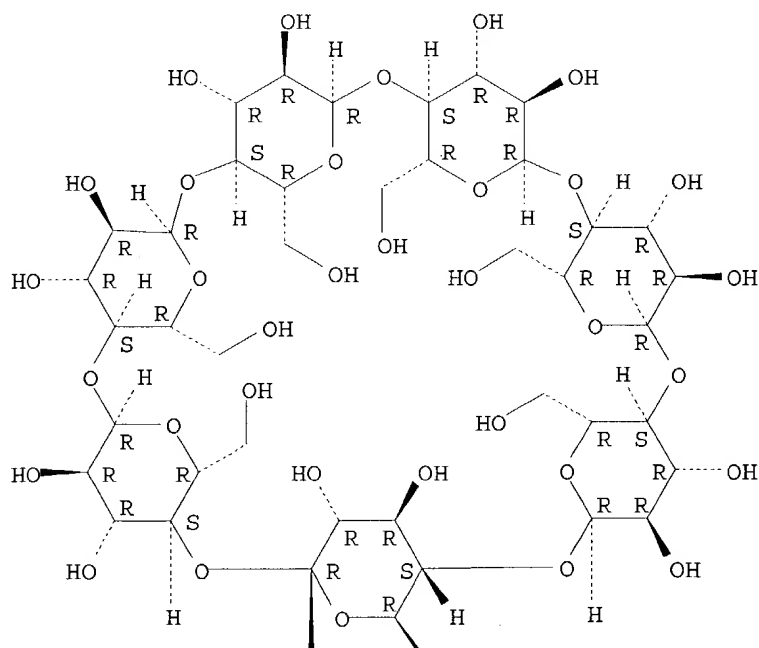
PAGE 3-A



IT 7585-39-9DP,  $\beta$ - Cyclodextrin, ethers with  
 1,2-propanediol, complexes with pancratistatin 17465-86-0DP,  
 $\gamma$ - Cyclodextrin, ethers with 1,2-propanediol, complexes  
 with pancratistatin  
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
 (preparation and solubility of, for **parenteral** solns.)  
 RN 7585-39-9 HCAPLUS  
 CN  $\beta$ -Cyclodextrin (8CI, 9CI) (CA INDEX NAME)

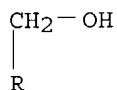
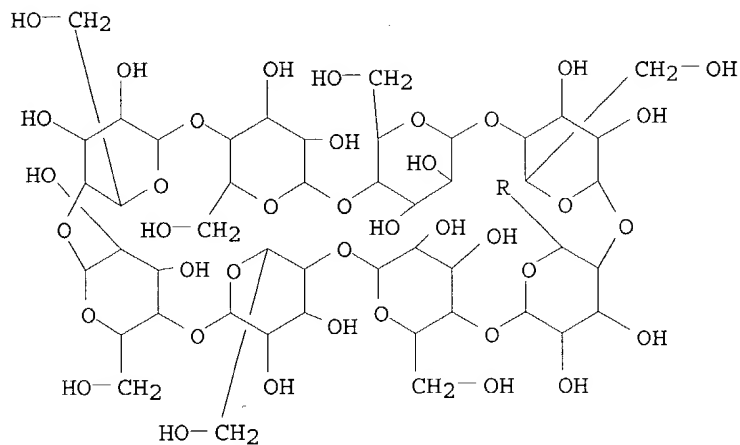
Absolute stereochemistry.

PAGE 1-A



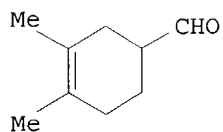


RN 17465-86-0 HCAPLUS  
 CN  $\gamma$ -Cyclodextrin (8CI, 9CI) (CA INDEX NAME)

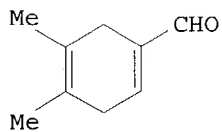


L31 ANSWER 8 OF 8 HCAPLUS COPYRIGHT 2004 ACS on STN  
 ACCESSION NUMBER: 1982:444333 HCAPLUS  
 DOCUMENT NUMBER: 97:44333  
 TITLE: **Antineoplastic pharmaceuticals**  
 PATENT ASSIGNEE(S): Institute of Physical and Chemical Research, Japan;  
 Tofu, Mutsuyuki; Kaken Chemical Co., Ltd.  
 SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 57058620	A2	19820408	JP 1980-133980	19800926 <--
JP 63044127	B4	19880902		
PRIORITY APPLN. INFO.: GI			JP 1980-133980	19800926



I



II

AB **Antineoplastic pharmaceuticals** for oral as well as **parenteral** administration are prepared containing 1,2-dimethyl-4-formyl-1-cyclohexene (I) [18022-66-7] or 1,2-dimethyl-4-formyl-1,4-cyclohexadiene (II) [82372-64-3]. Thus, enteric tablets were prepared containing I  $\beta$ - **cyclodextrin** inclusion compound [ **82372-66-5**] 100, lactose 98.4, hydroxypropyl cellulose 0.6, Mg stearate 2.0, cellulose acetate phthalate 6.0 and hydroxypropyl Me cellulose phthalate 6.0 g.

IT **82372-65-4 82372-66-5**

RL: BIOL (Biological study)

(**antineoplastic pharmaceuticals** containing)

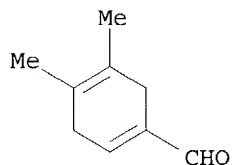
RN 82372-65-4 HCAPLUS

CN  $\beta$ -Cyclodextrin, compd. with 4,5-dimethyl-1,4-cyclohexadiene-1-carboxaldehyde (9CI) (CA INDEX NAME)

CM 1

CRN 82372-64-3

CMF C9 H12 O



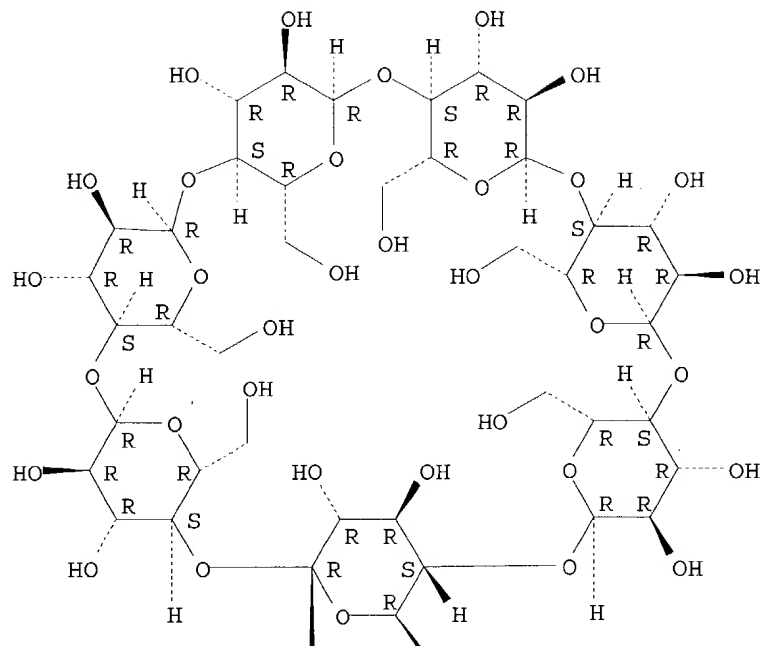
CM 2

CRN 7585-39-9

CMF C42 H70 O35

Absolute stereochemistry.

PAGE 1-A



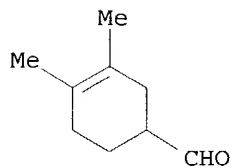
PAGE 2-A



RN 82372-66-5 HCAPLUS  
 CN  $\beta$ -Cyclodextrin, compd. with 3,4-dimethyl-3-cyclohexene-1-carboxaldehyde (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 18022-66-7  
 CMF C9 H14 O

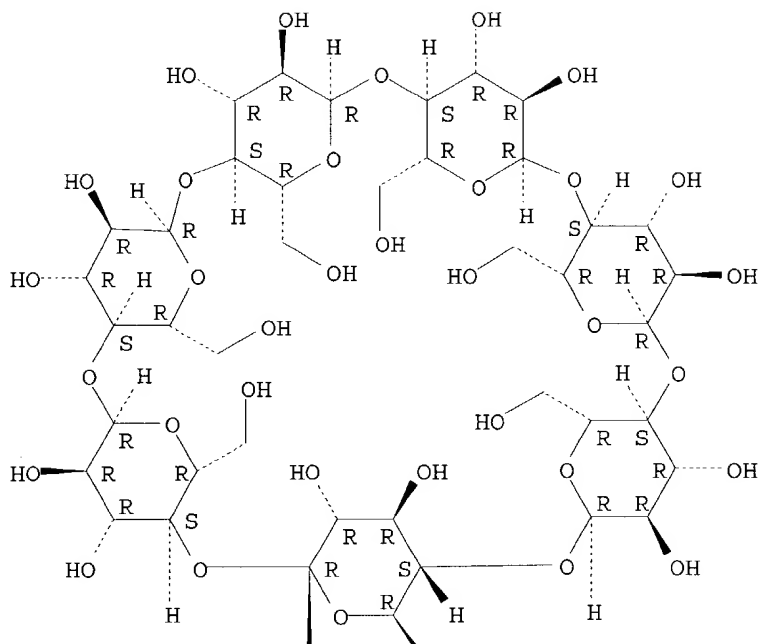


CM 2

CRN 7585-39-9  
 CMF C42 H70 O35

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A



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=> d stat que l33

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L8      26319 SEA FILE=REGISTRY ABB=ON  PLU=ON  CYCLODEXTR?
L10     27247 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L8 OR ?CYCLODEXTR?
L28     106633 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (?TUMOR? OR ?CANCER? OR
        ?NEOPLAS?) (5A) (?MEDIC? OR ?PHARM? OR ?DRUG? OR INHIBITOR OR
        ?THERAP?)
L32     706 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L10(L) (TABLET OR CAPSULE)
L33     3 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L28 AND L32 AND PD=<APRIL 10,
        1997

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=>

=> d ibib abs hitstr l33 1-3

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L33 ANSWER 1 OF 3 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1987:642634 HCAPLUS
DOCUMENT NUMBER: 107:242634

```

TITLE: **Antitumor pharmaceuticals**  
containing cyclodextrins and/or collagens as stabilizers  
INVENTOR(S): Nakanishi, Michio  
PATENT ASSIGNEE(S): Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 62149626	A2	19870703	JP 1985-291537	19851224 <--
PRIORITY APPLN. INFO.:			JP 1985-291537	19851224

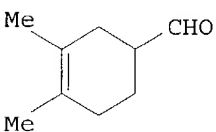
AB **Pharmaceuticals** contain **antitumor** agents and at least one compound selected from the group consisting of **cyclodextrins** and collagens. Tegafur 100 and  $\beta$ - **cyclodextrin** 200 parts by weight were dissolved in a mixture of Witepsol E-75 1000 and Witepsol H-15 900 parts by weight and placed in suppository **capsules**.

L33 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2004 ACS on STN

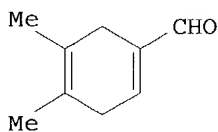
ACCESSION NUMBER: 1982:444333 HCAPLUS  
DOCUMENT NUMBER: 97:44333  
TITLE: **Antineoplastic pharmaceuticals**  
PATENT ASSIGNEE(S): Institute of Physical and Chemical Research, Japan;  
Tofu, Mutsuyuki; Kaken Chemical Co., Ltd.  
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 57058620	A2	19820408	JP 1980-133980	19800926 <--
JP 63044127	B4	19880902		
PRIORITY APPLN. INFO.:			JP 1980-133980	19800926

GI



I



II

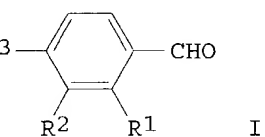
AB **Antineoplastic pharmaceuticals** for oral as well as parenteral administration are prepared containing 1,2-dimethyl-4-formyl-1-cyclohexene (I) [18022-66-7] or 1,2-dimethyl-4-formyl-1,4-cyclohexadiene (II) [82372-64-3]. Thus, enteric **tablets** were prepared containing I  $\beta$ - **cyclodextrin** inclusion compound [82372-66-5] 100, lactose 98.4, hydroxypropyl cellulose 0.6, Mg stearate 2.0, cellulose acetate phthalate 6.0 and hydroxypropyl Me cellulose phthalate 6.0 g.

L33 ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1981:180684 HCAPLUS  
 DOCUMENT NUMBER: 94:180684  
 TITLE: **Antitumor pharmaceuticals**  
 containing benzaldehyde derivatives  
 PATENT ASSIGNEE(S): Institute of Physical and Chemical Research, Japan;  
 Higashikaze, Mutsuyuki; Kaken Chemical Co., Ltd.  
 SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 56012310	A2	19810206	JP 1979-87242	19790710 <--
JP 63052012	B4	19881017		
PRIORITY APPLN. INFO.:			JP 1979-87242	19790710

I

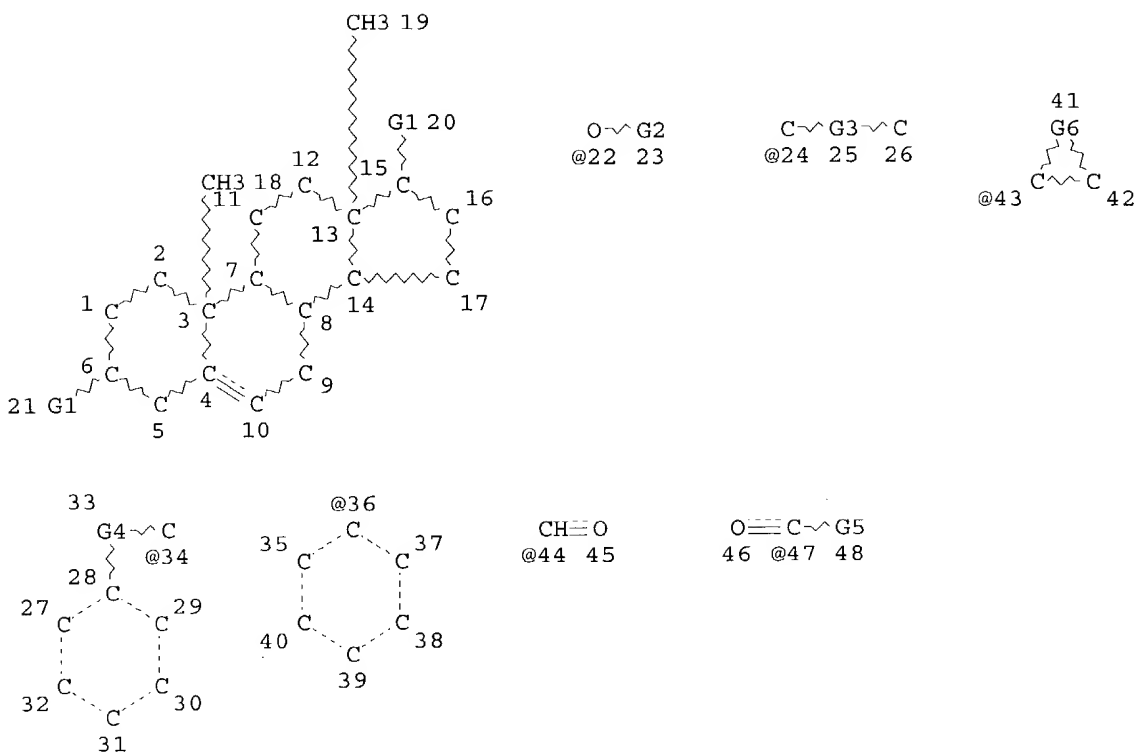


**B Anticancer pharmaceuticals** contain I (R1 = alkoxy, OH, Me, H, or halogens; R2 = alkoxy, phenoxy, OH, H or halogens; R3 = alkoxy, phenoxy, methyloxy, benzoyl, chlorophenylsulfonyl, OH, halogens, nitro, amino, pyrroliziny, or H). For example, 2-(heptyloxy)benzaldehyde (II) [66049-86-3] was prepared by the treatment of heptyl bromide [629-04-9] with Na salicylaldehyde [3116-83-4] in the presence of EtOH. II was treated with **cyclodextrin** to give a II-β-**cyclodextrin** inclusion compound [77422-29-8].  
**Tablets** were prepared containing the inclusion compound 100, lactose 99.4, hydroxypropyl cellulose 0.6, Mg stearate 2.0, cellulose acetate phthalate 6.0 and hydroxypropyl Me cellulose phthalate 6.0 g. II at 50 µg/mL totally inhibited the growth of W2K.11 cancer cells in cultures.

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1 STR



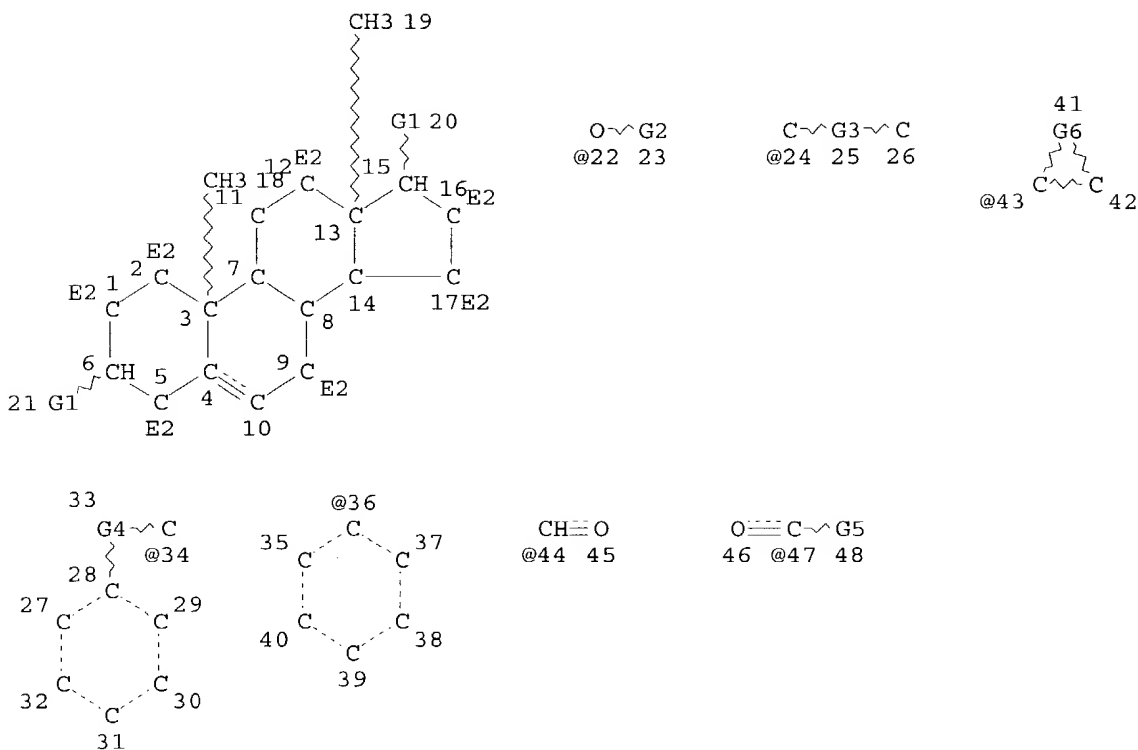
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VAR G2=ME/ET/I-PR/N-PR/I-BU/N-BU/T-BU/S-BU/24/34/36/43/44/47
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REP G4=(0-4) C
VAR G5=ME/ET/I-PR/N-PR/I-BU/N-BU/T-BU/S-BU/24/34/36/43
REP G6=(1-6) C
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 48

STEREO ATTRIBUTES: NONE
L5 3839 SEA FILE=REGISTRY SSS FUL L1
L6 STR

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REP G3=(3-6) C
REP G4=(0-4) C
VAR G5=ME/ET/I-PR/N-PR/I-BU/N-BU/T-BU/S-BU/24/34/36/43
REP G6=(1-6) C

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## NODE ATTRIBUTES:

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DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

## GRAPH ATTRIBUTES:

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RSPEC I
NUMBER OF NODES IS 48

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## STEREO ATTRIBUTES: NONE

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L7 226 SEA FILE=REGISTRY SUB=L5 SSS FUL L6
L8 26319 SEA FILE=REGISTRY ABB=ON PLU=ON CYCLODEXTR?
L9 1760 SEA FILE=HCAPLUS ABB=ON PLU=ON L7
L10 27247 SEA FILE=HCAPLUS ABB=ON PLU=ON L8 OR ?CYCLODEXTR?
L13 3 SEA FILE=REGISTRY ABB=ON PLU=ON 5-ANDROSTENE-3B,17.ALPHA
    .-DIOL?/CN
L14 1998 SEA FILE=HCAPLUS ABB=ON PLU=ON (5(2W)?ANDROSTENE?)
L17 1153 SEA FILE=HCAPLUS ABB=ON PLU=ON 3(2W)BETA AND 17(W)ALPHA(2W)DI
    OL?
L18 162 SEA FILE=HCAPLUS ABB=ON PLU=ON L17 AND L14

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L19 SEL PLU=ON L13 1- CHEM : 10 TERMS  
 L20 42 SEA FILE=HCAPLUS ABB=ON PLU=ON L19  
 L21 188 SEA FILE=HCAPLUS ABB=ON PLU=ON L20 OR L18  
 L22 37 SEA FILE=HCAPLUS ABB=ON PLU=ON L9 AND (L10 OR CARRIER)  
 L26 99 SEA FILE=HCAPLUS ABB=ON PLU=ON L9 AND L21  
 L27 2 SEA FILE=HCAPLUS ABB=ON PLU=ON L22 AND L26  
 L28 106633 SEA FILE=HCAPLUS ABB=ON PLU=ON (?TUMOR? OR ?CANCER? OR  
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 L30 85 SEA FILE=HCAPLUS ABB=ON PLU=ON L29 AND PD=<APRIL 10, 1997  
 L31 8 SEA FILE=HCAPLUS ABB=ON PLU=ON L30 AND (?PARENTER? OR  
 ?BUCCAL? OR ?SUBLING? OR ?ENDOTRACH? OR ?AEROS?)  
 L32 706 SEA FILE=HCAPLUS ABB=ON PLU=ON L10 (L) (TABLET OR CAPSULE)  
 L33 3 SEA FILE=HCAPLUS ABB=ON PLU=ON L28 AND L32 AND PD=<APRIL 10,  
 1997  
 L34 15 SEA FILE=HCAPLUS ABB=ON PLU=ON L9 AND L28  
 L35 3 SEA FILE=HCAPLUS ABB=ON PLU=ON L34 AND PD=<APRIL 10, 1997  
 L36 3 SEA FILE=HCAPLUS ABB=ON PLU=ON L35 NOT (L31 OR L27 OR L33)

=> d ibib abs hitstr l36 1-3

L36 ANSWER 1 OF 3 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1958:17505 HCAPLUS

DOCUMENT NUMBER: 52:17505

ORIGINAL REFERENCE NO.: 52:3171e-f

TITLE: Testosterone and miscellaneous steroids in the  
treatment of advanced mammary cancer

AUTHOR(S): Segaloff, Albert

CORPORATE SOURCE: Alton Ochsner Med. Foundation, New Orleans, LA

SOURCE: Cancer (1957), 10, 808-12

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

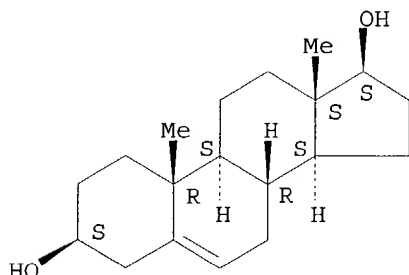
AB The effects of progesterone, cortisone, testosterone, etiocholane-17 $\beta$ -ol-3-one, androstane-3,17-dione, 5-androstene-3 $\beta$ ,17 $\beta$ -diol, androstane-17 $\beta$ -ol-3-one, 5-androsten-3 $\beta$ -ol-17-one, 17 $\alpha$ -methyl-5-androstene-3 $\beta$ ,17 $\beta$ -diol, 17 $\alpha$ -methyl-4-androsten-17 $\beta$ -ol-3-one, 17 $\alpha$ -vinyl-4-androsten-17 $\beta$ -ol-3-one, 4-androsten-17 $\alpha$ -ol-3-one, and 4-estren-17 $\beta$ -ol-3-one on hormonal excretion, their clinical effectiveness, and androgenicity are summarized. Changes in the testosterone mol. that decreased androgenicity and the ability to inhibit the excretion of gonad-stimulating hormones also decreased the clinical effectiveness of the compds.

IT 521-17-5, Androst-5-ene-3 $\beta$ ,17 $\beta$ -diol  
(in mammary cancer treatment)

RN 521-17-5 HCAPLUS

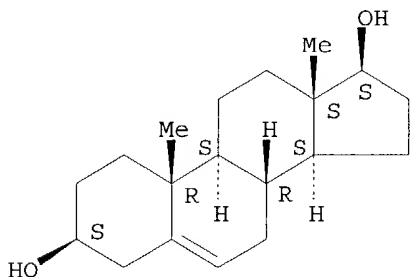
CN Androst-5-ene-3,17-diol, (3 $\beta$ ,17 $\beta$ )- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



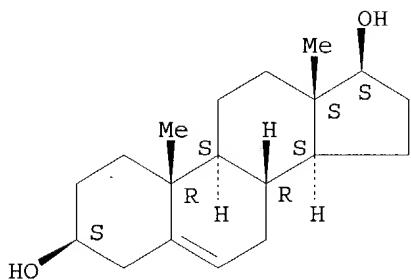
L36 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2004 ACS on STN  
 ACCESSION NUMBER: 1954:61538 HCAPLUS  
 DOCUMENT NUMBER: 48:61538  
 ORIGINAL REFERENCE NO.: 48:10933a  
 TITLE: Hormonal **therapy** in **cancer** of the  
 breast. IV. Effect of androstenediol on clinical  
 course and hormonal excretion  
 AUTHOR(S): Segaloff, Albert; Horwitt, Benjamin N.; Gordon,  
 Douglas; Murison, Paul J.; Schlosser, Joseph V.  
 CORPORATE SOURCE: Tulane Univ., New Orleans, LA  
 SOURCE: Obstetrical & Gynecological Survey (1954),  
 9, 458-9  
 CODEN: OGSUA8; ISSN: 0029-7828  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Unavailable  
 AB See C.A. 47, 2381i.  
 IT 521-17-5, Androstenediol  
 (cancer therapy with)  
 RN 521-17-5 HCAPLUS  
 CN Androst-5-ene-3,17-diol, (3 $\beta$ ,17 $\beta$ )- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



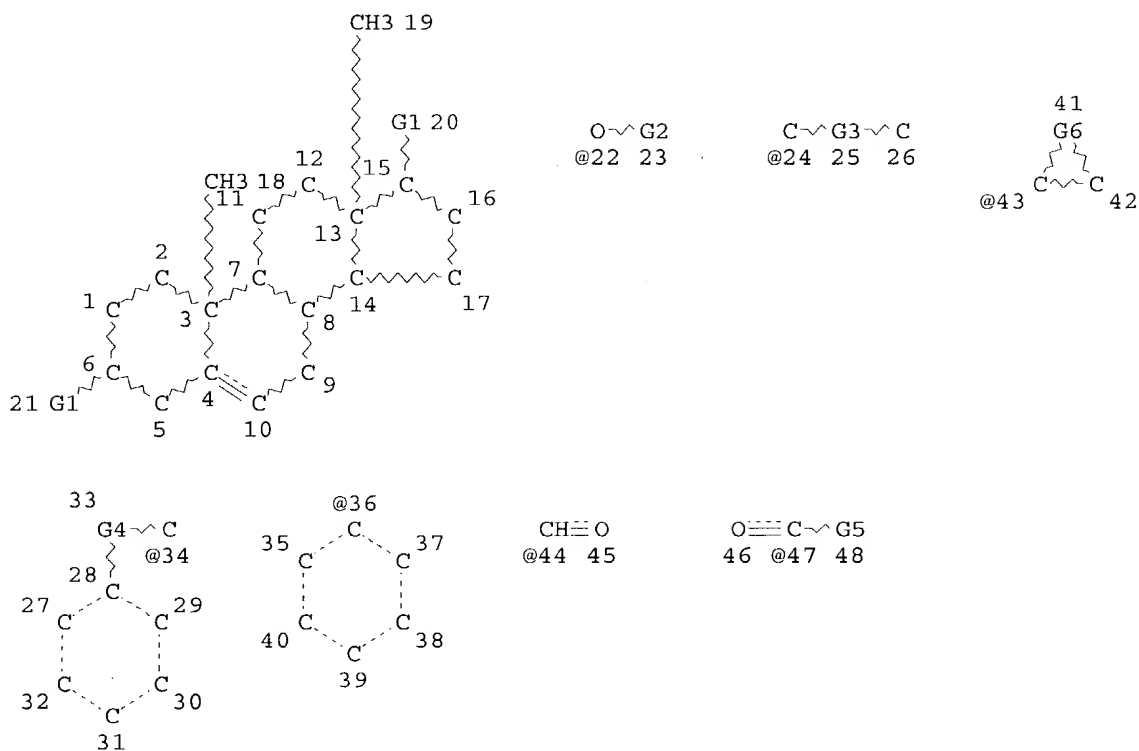
L36 ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2004 ACS on STN  
 ACCESSION NUMBER: 1953:13481 HCAPLUS  
 DOCUMENT NUMBER: 47:13481  
 ORIGINAL REFERENCE NO.: 47:2381i,2382a  
 TITLE: Hormonal **therapy** in **cancer** of the  
 breast. IV. Effect of androstenediol on clinical  
 course and hormonal excretion  
 AUTHOR(S): Segaloff, Albert; Horwitt, Benjamin N.; Gordon,  
 Douglas; Murison, Paul J.; Schlosser, Joseph V.  
 CORPORATE SOURCE: Tulane Univ. Med. School, New Orleans, LA  
 SOURCE: Cancer (1952), 5, 1179-81  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Unavailable  
 AB cf. C.A. 46, 6275c. Of 21 patients treated with intramuscular injections  
 of  $\Delta^5$ -androstene-3 $\beta$ ,17 $\beta$ -diol, none showed regression of  
 lesions. The therapy caused an increase in the urinary 17-ketosteroids,  
 formaldehydogenic corticoids, and uric acid excretion. There were  
 decreases in urinary creatinine and ovarian-hyperemia gonadotropins.  
 Several of the patients showed lower gonad-stimulating hormone excretion  
 than usual for their age and endocrine status.  
 IT 521-17-5, 5-Androstene-3 $\beta$ ,17 $\beta$ -diol  
 (effect on mammary cancer)  
 RN 521-17-5 HCAPLUS  
 CN Androst-5-ene-3,17-diol, (3 $\beta$ ,17 $\beta$ )- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



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L1 STR



VAR G1=OH/22  
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REP G4=(0-4) C  
VAR G5=ME/ET/I-PR/N-PR/I-BU/N-BU/T-BU/S-BU/24/34/36/43  
REP G6=(1-6) C  
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DEFAULT ECLEVEL IS LIMITED

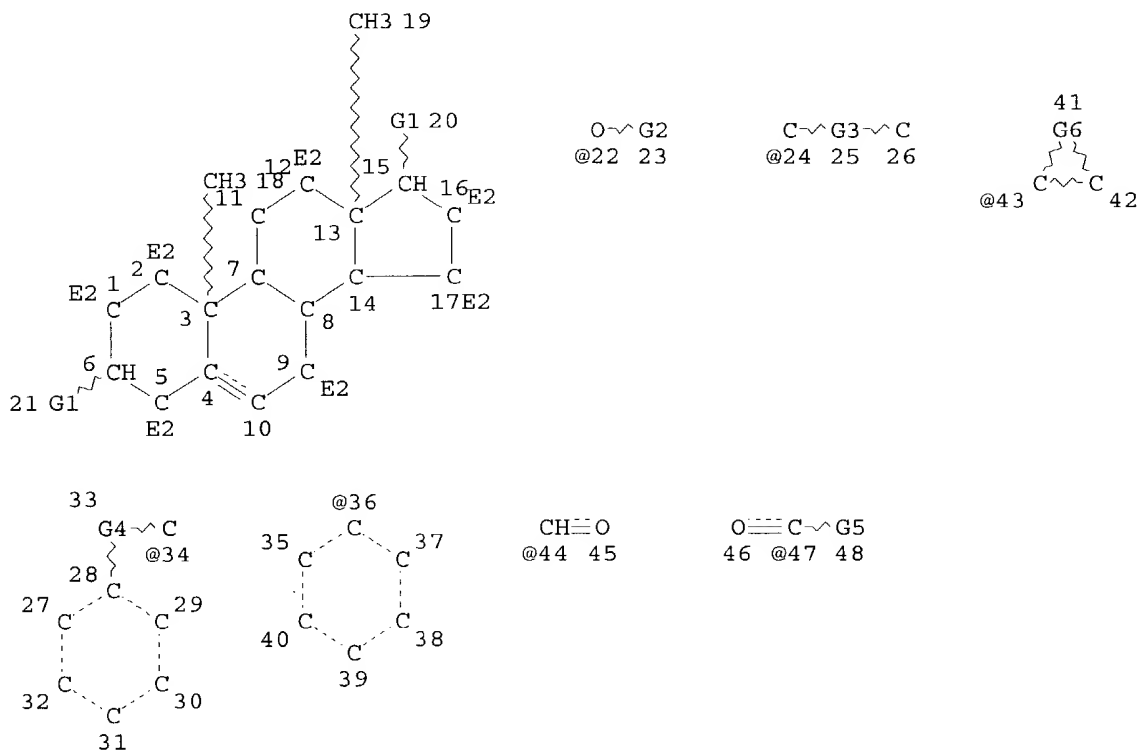
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RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 48

STEREO ATTRIBUTES: NONE

L5 3839 SEA FILE=REGISTRY SSS FUL L1

L6 STR



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VAR G2=ME/ET/I-PR/N-PR/I-BU/N-BU/T-BU/S-BU/24/34/36/43/44/47

REP G3=(3-6) C

REP G4=(0-4) C

VAR G5=ME/ET/I-PR/N-PR/I-BU/N-BU/T-BU/S-BU/24/34/36/43

REP G6=(1-6) C

NODE ATTRIBUTES:

HCOUNT IS E2 AT 1

HCOUNT IS E2 AT 2

HCOUNT IS E2 AT 5

HCOUNT IS E2 AT 9

HCOUNT IS E2 AT 12

HCOUNT IS E2 AT 16

HCOUNT IS E2 AT 17

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RSPEC I

NUMBER OF NODES IS 48

STEREO ATTRIBUTES: NONE

L7 226 SEA FILE=REGISTRY SUB=L5 SSS FUL L6

L8 26319 SEA FILE=REGISTRY ABB=ON PLU=ON CYCLODEXTR?

L9 1760 SEA FILE=HCAPLUS ABB=ON PLU=ON L7

L10 27247 SEA FILE=HCAPLUS ABB=ON PLU=ON L8 OR ?CYCLODEXTR?

L13 3 SEA FILE=REGISTRY ABB=ON PLU=ON 5-ANDROSTENE-3B,17.ALPHA  
.-DIOL?/CN

L14 1998 SEA FILE=HCAPLUS ABB=ON PLU=ON (5(2W)?ANDROSTENE?)  
 L17 1153 SEA FILE=HCAPLUS ABB=ON PLU=ON 3(2W)BETA AND 17(W)ALPHA(2W)DI  
 OL?  
 L18 162 SEA FILE=HCAPLUS ABB=ON PLU=ON L17 AND L14  
 L19 SEL PLU=ON L13 1- CHEM : 10 TERMS  
 L20 42 SEA FILE=HCAPLUS ABB=ON PLU=ON L19  
 L21 188 SEA FILE=HCAPLUS ABB=ON PLU=ON L20 OR L18  
 L22 37 SEA FILE=HCAPLUS ABB=ON PLU=ON L9 AND (L10 OR CARRIER)  
 L26 99 SEA FILE=HCAPLUS ABB=ON PLU=ON L9 AND L21  
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 L28 106633 SEA FILE=HCAPLUS ABB=ON PLU=ON (?TUMOR? OR ?CANCER? OR  
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 L30 85 SEA FILE=HCAPLUS ABB=ON PLU=ON L29 AND PD=<APRIL 10, 1997  
 L31 8 SEA FILE=HCAPLUS ABB=ON PLU=ON L30 AND (?PARENTER? OR  
 ?BUCCAL? OR ?SUBLING? OR ?ENDOTRACH? OR ?AEROS?)  
 L32 706 SEA FILE=HCAPLUS ABB=ON PLU=ON L10(L) (TABLET OR CAPSULE)  
 L33 3 SEA FILE=HCAPLUS ABB=ON PLU=ON L28 AND L32 AND PD=<APRIL 10,  
 1997  
 L34 15 SEA FILE=HCAPLUS ABB=ON PLU=ON L9 AND L28  
 L35 3 SEA FILE=HCAPLUS ABB=ON PLU=ON L34 AND PD=<APRIL 10, 1997  
 L36 3 SEA FILE=HCAPLUS ABB=ON PLU=ON L35 NOT (L31 OR L27 OR L33)  
 L37 1 SEA FILE=HCAPLUS ABB=ON PLU=ON L9(L) (TABLET OR CAPSULE)  
 L38 1 SEA FILE=HCAPLUS ABB=ON PLU=ON L37 NOT (L31 OR L27 OR L33 OR  
 L36)

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=> d ibib abs hitstr l38 1

L38 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2004 ACS on STN  
 ACCESSION NUMBER: 1989:540509 HCAPLUS  
 DOCUMENT NUMBER: 111:140509  
 TITLE: Antidiabetics containing hormones  
 INVENTOR(S): Nishihata, Ryoji; Mikami, Hiroteru; Numazawa, Hiromi;  
 Namura, Shogo; Inoue, Akifumi; Yoneda, Ryoza  
 PATENT ASSIGNEE(S): Nippon Zoki Pharmaceutical Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 63290828	A2	19881128	JP 1987-126328	19870522
JP 2542846	B2	19961009		

PRIORITY APPLN. INFO.: JP 1987-126328 19870522

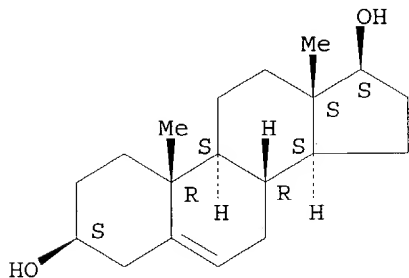
AB A pharmaceutical for treatment of diabetes contains pregnenolone,  
 androstenedione, androstenediol, testosterone, estrone, and dried powdered  
 thyroid tissues. A tablet was prepared consisting of pregnenolone 1.0,  
 androstenedione 1.0, androstenediol 0.5, testosterone 0.1, estrone 0.005,  
 dried thyroid powder 7.5, and other excipients to 400 mg. Pharmacol.  
 studies with mice are shown.

IT 521-17-5, Androstenediol  
 RL: BIOL (Biological study)  
 (antidiabetic tablets containing)

RN 521-17-5 HCAPLUS

CN Androst-5-ene-3,17-diol, (3 $\beta$ ,17 $\beta$ ) - (9CI) (CA INDEX NAME)

Absolute stereochemistry.



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L1          STR
L5          3839 SEA FILE=REGISTRY SSS FUL L1
L6          STR
L7          226 SEA FILE=REGISTRY SUB=L5 SSS FUL L6
L8          26319 SEA FILE=REGISTRY ABB=ON PLU=ON CYCLODEXTR?
L9          1760 SEA FILE=HCAPLUS ABB=ON PLU=ON L7
L10         27247 SEA FILE=HCAPLUS ABB=ON PLU=ON L8 OR ?CYCLODEXTR?
L13         3 SEA FILE=REGISTRY ABB=ON PLU=ON 5-ANDROSTENE-3B,17.ALPHA
          .-DIOL?/CN
L14         1998 SEA FILE=HCAPLUS ABB=ON PLU=ON (5(2W)?ANDROSTENE?)
L17         1153 SEA FILE=HCAPLUS ABB=ON PLU=ON 3(2W)BETA AND 17(W)ALPHA(2W)DI
          OL?
L18         162 SEA FILE=HCAPLUS ABB=ON PLU=ON L17 AND L14
L19         SEL PLU=ON L13 1- CHEM : 10 TERMS
L20         42 SEA FILE=HCAPLUS ABB=ON PLU=ON L19
L21         188 SEA FILE=HCAPLUS ABB=ON PLU=ON L20 OR L18
L22         37 SEA FILE=HCAPLUS ABB=ON PLU=ON L9 AND (L10 OR CARRIER)
L26         99 SEA FILE=HCAPLUS ABB=ON PLU=ON L9 AND L21
L27         2 SEA FILE=HCAPLUS ABB=ON PLU=ON L22 AND L26
L28         106633 SEA FILE=HCAPLUS ABB=ON PLU=ON (?TUMOR? OR ?CANCER? OR
          ?NEOPLAS?) (5A) (?MEDIC? OR ?PHARM? OR ?DRUG? OR INHIBITOR OR
          ?THERAP?)
L29         232 SEA FILE=HCAPLUS ABB=ON PLU=ON L10 AND L28
L30         85 SEA FILE=HCAPLUS ABB=ON PLU=ON L29 AND PD=<APRIL 10, 1997
L31         8 SEA FILE=HCAPLUS ABB=ON PLU=ON L30 AND (?PARENTER? OR
          ?BUCCAL? OR ?SUBLING? OR ?ENDOTRACH? OR ?AEROS?)
L32         706 SEA FILE=HCAPLUS ABB=ON PLU=ON L10(L) (TABLET OR CAPSULE)
L33         3 SEA FILE=HCAPLUS ABB=ON PLU=ON L28 AND L32 AND PD=<APRIL 10,
          1997
L34         15 SEA FILE=HCAPLUS ABB=ON PLU=ON L9 AND L28
L35         3 SEA FILE=HCAPLUS ABB=ON PLU=ON L34 AND PD=<APRIL 10, 1997
L36         3 SEA FILE=HCAPLUS ABB=ON PLU=ON L35 NOT (L31 OR L27 OR L33)
L37         1 SEA FILE=HCAPLUS ABB=ON PLU=ON L9(L) (TABLET OR CAPSULE)
L38         1 SEA FILE=HCAPLUS ABB=ON PLU=ON L37 NOT (L31 OR L27 OR L33 OR
          L36)
L39         13 SEA FILE=HCAPLUS ABB=ON PLU=ON L9 AND (?PARENTER? OR
          ?BUCCAL? OR ?SUBLING? OR ?ENDOTRACH? OR ?AEROSOL?)
L40         12 SEA FILE=HCAPLUS ABB=ON PLU=ON L39 NOT (L31 OR L27 OR L33 OR
          L36 OR L38)
L41         2 SEA FILE=HCAPLUS ABB=ON PLU=ON L40 AND PD=<APRIL 10, 1997

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L41 ANSWER 1 OF 2 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1953:22845 HCAPLUS

DOCUMENT NUMBER: 47:22845

ORIGINAL REFERENCE NO.: 47:3954f-g

TITLE: Urinary excretion of phenol steroids and 3-hydroxy steroids after administration of androstenediol

AUTHOR(S): Principe, S.; Gasparri, F.

CORPORATE SOURCE: Univ. Florence, Italy

SOURCE: Rivista di Ostetricia e Ginecologia (1951), 6, 299-303

CODEN: ROGNAG; ISSN: 0394-977X

DOCUMENT TYPE: Journal

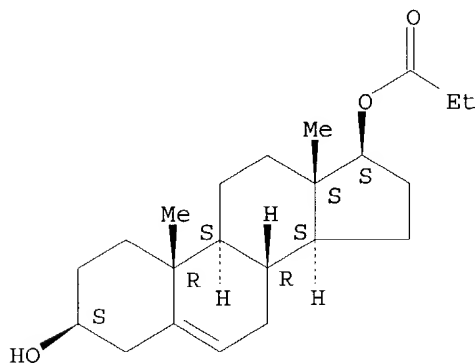
LANGUAGE: Unavailable

AB The **parenteral** administration of 25 mg. androstenediol propionate to 20 eucrinic women caused an excretion of phenol steroids and 3-hydroxy steroids inversely proportional to their basal value.IT **38859-47-1**, Androstenediol, propionate (effect on phenol steroids and 3-hydroxy steroids in urine)

RN 38859-47-1 HCAPLUS

CN Androst-5-ene-3,17-diol, 17-propanoate, (3 $\beta$ ,17 $\beta$ )- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L41 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1952:62481 HCAPLUS

DOCUMENT NUMBER: 46:62481

ORIGINAL REFERENCE NO.: 46:10461b-c

TITLE: Morphological and functional changes produced by high doses of androstenediol on the gonads and hypophysis in the adult guinea pig. II. Testicle

AUTHOR(S): Larizza, Paolo; Chirico, Giuseppe

CORPORATE SOURCE: Univ. Pavia, Italy

SOURCE: Archivio per le Scienze Mediche (1952), 94, 109-15

CODEN: ASMEAU; ISSN: 0004-0312

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

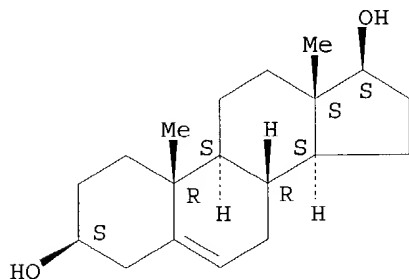
AB **Parenteral** administration of large doses of androstenediol dipropionate in oil produced in the guinea pig on long treatment changes in the testicle showing inhibition of the tubules and the interstitial tissue.IT **521-17-5**, Androstenediol

(effect on gonads and hypophysis)

RN 521-17-5 HCAPLUS

CN Androst-5-ene-3,17-diol, (3 $\beta$ ,17 $\beta$ )- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



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L1          STR
L5          3839 SEA FILE=REGISTRY SSS FUL L1
L6          STR
L7          226 SEA FILE=REGISTRY SUB=L5 SSS FUL L6
L8          26319 SEA FILE=REGISTRY ABB=ON PLU=ON CYCLODEXTR?
L9          1760 SEA FILE=HCAPLUS ABB=ON PLU=ON L7
L10         27247 SEA FILE=HCAPLUS ABB=ON PLU=ON L8 OR ?CYCLODEXTR?
L13         3 SEA FILE=REGISTRY ABB=ON PLU=ON 5-ANDROSTENE-3B,17.ALPHA
          .-DIOL?/CN
L14         1998 SEA FILE=HCAPLUS ABB=ON PLU=ON (5(2W)?ANDROSTENE?)
L17         1153 SEA FILE=HCAPLUS ABB=ON PLU=ON 3(2W)BETA AND 17(W)ALPHA(2W)DI
          OL?
L18         162 SEA FILE=HCAPLUS ABB=ON PLU=ON L17 AND L14
L19         SEL PLU=ON L13 1- CHEM : 10 TERMS
L20         42 SEA FILE=HCAPLUS ABB=ON PLU=ON L19
L21         188 SEA FILE=HCAPLUS ABB=ON PLU=ON L20 OR L18
L22         37 SEA FILE=HCAPLUS ABB=ON PLU=ON L9 AND (L10 OR CARRIER)
L26         99 SEA FILE=HCAPLUS ABB=ON PLU=ON L9 AND L21
L27         2 SEA FILE=HCAPLUS ABB=ON PLU=ON L22 AND L26
L28         106633 SEA FILE=HCAPLUS ABB=ON PLU=ON (?TUMOR? OR ?CANCER? OR
          ?NEOPLAS?)(5A)(?MEDIC? OR ?PHARM? OR ?DRUG? OR INHIBITOR OR
          ?THERAP?)
L29         232 SEA FILE=HCAPLUS ABB=ON PLU=ON L10 AND L28
L30         85 SEA FILE=HCAPLUS ABB=ON PLU=ON L29 AND PD=<APRIL 10, 1997
L31         8 SEA FILE=HCAPLUS ABB=ON PLU=ON L30 AND (?PARENTER? OR
          ?BUCCAL? OR ?SUBLING? OR ?ENDOTRACH? OR ?AEROS?)
L32         706 SEA FILE=HCAPLUS ABB=ON PLU=ON L10(L)(TABLET OR CAPSULE)
L33         3 SEA FILE=HCAPLUS ABB=ON PLU=ON L28 AND L32 AND PD=<APRIL 10,
          1997
L34         15 SEA FILE=HCAPLUS ABB=ON PLU=ON L9 AND L28
L35         3 SEA FILE=HCAPLUS ABB=ON PLU=ON L34 AND PD=<APRIL 10, 1997
L36         3 SEA FILE=HCAPLUS ABB=ON PLU=ON L35 NOT (L31 OR L27 OR L33)
L37         1 SEA FILE=HCAPLUS ABB=ON PLU=ON L9(L)(TABLET OR CAPSULE)
L38         1 SEA FILE=HCAPLUS ABB=ON PLU=ON L37 NOT (L31 OR L27 OR L33 OR
          L36)
L39         13 SEA FILE=HCAPLUS ABB=ON PLU=ON L9 AND (?PARENTER? OR
          ?BUCCAL? OR ?SUBLING? OR ?ENDOTRACH? OR ?AEROSOL?)
L40         12 SEA FILE=HCAPLUS ABB=ON PLU=ON L39 NOT (L31 OR L27 OR L33 OR
          L36 OR L38)

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L42 175 SEA FILE=HCAPLUS ABB=ON PLU=ON L21 AND PD=<APRIL 10, 1997  
 L43 2 SEA FILE=HCAPLUS ABB=ON PLU=ON (L42 AND (?PARENTER? OR  
 ?BUCCAL? OR ?SUBLING? OR ?ENDOTRACH? OR ?AEROSOL?)) NOT (L31  
 OR L27 OR L33 OR L36 OR L38 OR L40)

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=> d ibib abs hitstr l43 1-3

L43 ANSWER 1 OF 2 HCAPLUS COPYRIGHT 2004 ACS on STN  
 ACCESSION NUMBER: 1967:95307 HCAPLUS  
 DOCUMENT NUMBER: 66:95307  
 TITLE: 7 $\alpha$ -Methyl- and 2 $\alpha$ ,7 $\alpha$ -  
 dimethylandrosterone derivatives  
 PATENT ASSIGNEE(S): Upjohn Co.  
 SOURCE: Neth. Appl., 51 pp.  
 CODEN: NAXXAN  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Dutch  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
NL 6604607		19661010		<--
DE 1593613			DE	
FR 1492868			FR	
FR 5612			FR	
GB 1146991			GB	
GB 1146992			GB	
US 3380886		19680000	US	<--

PRIORITY APPLN. INFO.: US 19650407

AB Some of the information of Neth. Appl. 6,604,702 is given. The following  
 addnl. information is presented. 7 $\alpha$ ,17 $\alpha$ -Dimethyl-3,5-  
 androstadiene-3,17 $\alpha$ -**diol**  
 3,17-diacetate (0.5 g.) containing some 7 $\beta$ -epimer in 15 cc. 95% EtOH  
 treated about 18 hrs. at room temperature with 0.5 g. NaBH<sub>4</sub> in 15 cc. 95% EtOH  
 gave a mixture of 7 $\alpha$ ,17 $\alpha$ -dimethyl- 5-**androsterone**  
 -3 $\beta$ ,17 $\beta$ -diol 17-acetate (I) and  
 its 7 $\beta$ -epimer. I (0.38 g.) in 20 cc. tetrahydrofuran treated 24 hrs.  
 at room temperature with stirring with 1 g. LiAlH<sub>4</sub> gave 160 mg.  
 7 $\alpha$ ,17 $\alpha$ -dimethyl- 5. $\alpha$ -**androsterone**-  
 3 $\beta$ ,17 $\beta$ -diol, m. 193-4°  
 (Me<sub>2</sub>CO-Skellysolve B). 7 $\alpha$ -Methyl-3,5-androstadiene- 3,17.  
**beta**.-diol 3,17-diacetate (20 g.) in 300 cc. 95% EtOH stirred 16  
 hrs. under N with 10 g. NaBH<sub>4</sub> in 250 cc. 95% EtOH yielded 1.6 g.  
 7 $\alpha$ -methyl- 5-**androsterone**-3.**beta**  
 .,17 $\beta$ -diol (II), m. 213-16° (Me<sub>2</sub>CO), [ $\alpha$ ]<sub>D</sub>  
 -124° (dioxane). 17-Acetate (III) (1.8 g.) of II stirred 16 hrs.  
 in 10 cc. dihydropyran and 50 cc. Et<sub>2</sub>O with 100 mg. p-MeC<sub>6</sub>H<sub>4</sub>SO<sub>3</sub>H, and the  
 resulting 3-tetrahydropyranyl ether refluxed about 1.5 hrs. with 100 cc.  
 5% K<sub>2</sub>CO<sub>3</sub> in 4:1 MeOH-H<sub>2</sub>O gave the 3-tetrahydropyranyl ether (IV) of II.  
 The IV in 10 cc. C<sub>5</sub>H<sub>5</sub>N treated 16 hrs. at room temperature with 2 g. CrO<sub>3</sub> in 20  
 cc. C<sub>5</sub>H<sub>5</sub>N gave the 3-tetrahydropyranyl ether of 7 $\alpha$ -methyl-5-  
 androsten-3 $\beta$ -ol-17-one (V) which treated  
 overnight in 20 cc. Me<sub>2</sub>CO with 2 cc. 3N HCl gave V. V (1 g.) treated 16  
 hrs. at room temperature with 1 cc. each C<sub>5</sub>H<sub>5</sub>N and Ac<sub>2</sub>O gave the 3,17-diacetate  
 of V, m. 104-6° (MeOH). The compds. described are useful anabolic,  
 antiandrogenic, antiestrogenic, and hypocholesteremic agents. Examples  
 for their formulation in tablets, gelatin capsules, and aqueous suspensions

for oral and **parenteral** applications are given.

43 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1946:27994 HCAPLUS

DOCUMENT NUMBER: 40:27994

ORIGINAL REFERENCE NO.: 40:5495f-h

TITLE: Isolation of androsterone, etiocholan-3( $\alpha$ )-ol-17-one, and **.DELTA.5-androstene-3( $\beta$ ),17(.**

**alpha.)-diol** from the urine after administration of dehydroisoandrosterone to a man  
Mason, Harold L.; Kepler, Edwin J.

CORPORATE SOURCE: Mayo Clinic, Rochester, MN

SOURCE: Journal of Biological Chemistry (1945), 160, 255-64

CODEN: JBCHA3; ISSN: 0021-9258

DOCUMENT TYPE: Journal

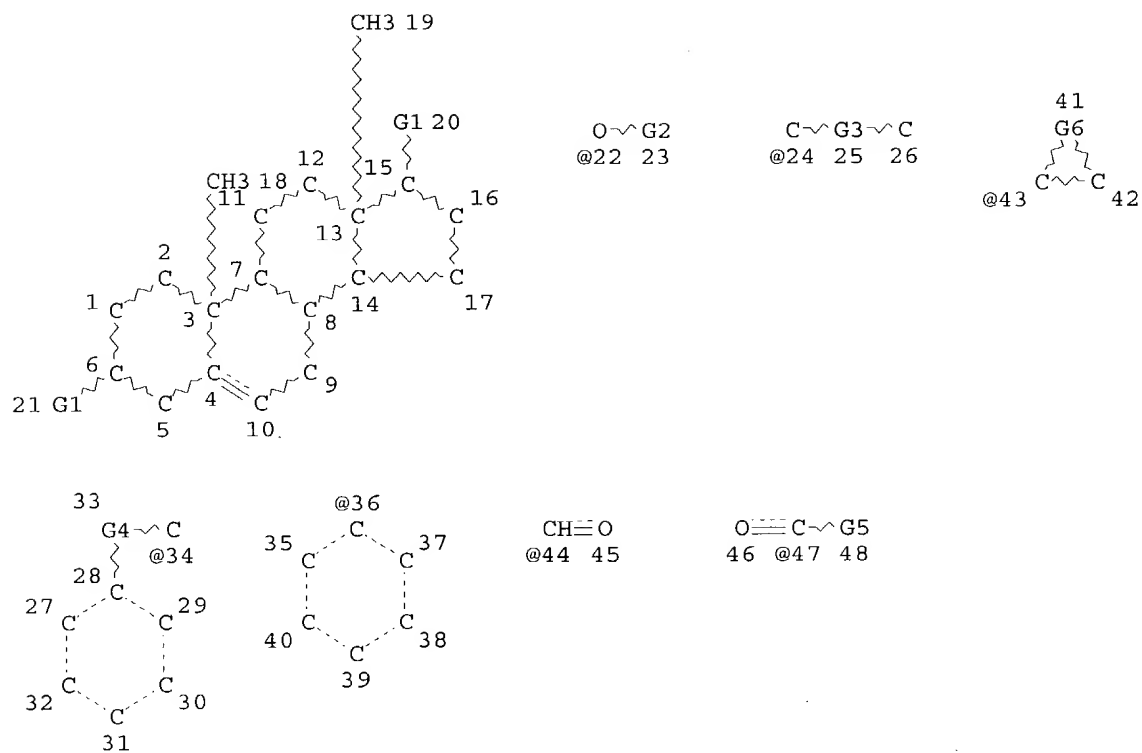
LANGUAGE: Unavailable

B cf. C.A. 40, 3517.6. The urinary steroids formed during the administration of dehydroisoandrosterone (I), which is present in relatively large amts. in the urine of patients with tumors of the adrenal cortex, to a subject were determined in an effort to elucidate the metabolism of I. After **parenteral** administration of 1090 mg. of I acetate to a man with anterior-pituitary insufficiency, 79 mg. of unchanged I, 130 mg. of androsterone, 73 mg. of etiocholan-3( $\alpha$ )-ol-17-one and 6.5 mg. of D5-androstene-3 ( $\beta$ ), 17 (.  
**alpha.)-diol** were recovered from the urine. Two addnl. crystalline ketones and four nonketones were obtained in small amts. but not identified.

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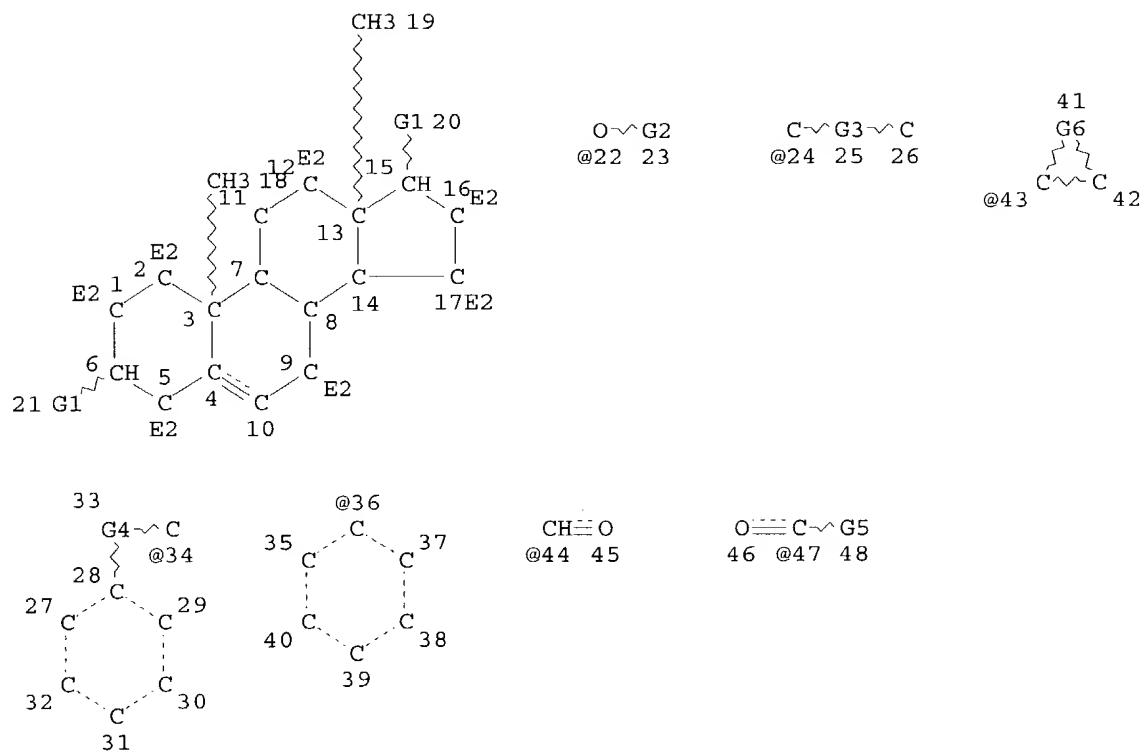
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VAR G1=OH/22
VAR G2=ME/ET/I-PR/N-PR/I-BU/N-BU/T-BU/S-BU/24/34/36/43/44/47
REP G3=(3-6) C
REP G4=(0-4) C
VAR G5=ME/ET/I-PR/N-PR/I-BU/N-BU/T-BU/S-BU/24/34/36/43
REP G6=(1-6) C
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 48

STEREO ATTRIBUTES: NONE
L5 3839 SEA FILE=REGISTRY SSS FUL L1
L6 STR

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VAR G1=OH/22  
 VAR G2=ME/ET/I-PR/N-PR/I-BU/N-BU/T-BU/S-BU/24/34/36/43/44/47  
 REP G3=(3-6) C  
 REP G4=(0-4) C  
 VAR G5=ME/ET/I-PR/N-PR/I-BU/N-BU/T-BU/S-BU/24/34/36/43  
 REP G6=(1-6) C

## NODE ATTRIBUTES:

HCOUNT	IS	E2	AT	1
HCOUNT	IS	E2	AT	2
HCOUNT	IS	E2	AT	5
HCOUNT	IS	E2	AT	9
HCOUNT	IS	E2	AT	12
HCOUNT	IS	E2	AT	16
HCOUNT	IS	E2	AT	17

DEFAULT MLEVEL IS ATOM  
 DEFAULT ECLEVEL IS LIMITED

## GRAPH ATTRIBUTES:

RSPEC I  
 NUMBER OF NODES IS 48

## STEREO ATTRIBUTES: NONE

L7	226	SEA	FILE=REGISTRY	SUB=L5	SSS	FUL	L6
L8	26319	SEA	FILE=REGISTRY	ABB=ON	PLU=ON	CYCLODEXTR?	
L9	1760	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L7	
L10	27247	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L8 OR ?CYCLODEXTR?	
L13	3	SEA	FILE=REGISTRY	ABB=ON	PLU=ON	5-ANDROSTENE-3B,17.ALPHA .-DIOL?/CN	
L14	1998	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	(5(2W)?ANDROSTENE?)	
L17	1153	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	3(2W)BETA AND 17(W)ALPHA(2W)DI OL?	
L18	162	SEA	FILE=HCAPLUS	ABB=ON	PLU=ON	L17 AND L14	

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L19      SEL  PLU=ON  L13 1- CHEM :      10 TERMS
L20      42 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L19
L21      188 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L20 OR L18
L22      37 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L9 AND (L10 OR CARRIER)
L26      99 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L9 AND L21
L27      2 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L22 AND L26
L28      106633 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (?TUMOR? OR ?CANCER? OR
        ?NEOPLAS?) (5A) (?MEDIC? OR ?PHARM? OR ?DRUG? OR INHIBTOR OR
        ?THERAP?)
L29      232 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L10 AND L28
L30      85 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L29 AND PD=<APRIL 10, 1997
L31      8 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L30 AND (?PARENTER? OR
        ?BUCCAL? OR ?SUBLING? OR ?ENDOTRACH? OR ?AEROS?)
L32      706 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L10(L) (TABLET OR CAPSULE)
L33      3 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L28 AND L32 AND PD=<APRIL 10,
        1997
L34      15 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L9 AND L28
L35      3 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L34 AND PD=<APRIL 10, 1997
L36      3 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L35 NOT (L31 OR L27 OR L33)
L37      1 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L9(L) (TABLET OR CAPSULE)
L38      1 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L37 NOT (L31 OR L27 OR L33 OR
        L36)
L39      13 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L9 AND (?PARENTER? OR
        ?BUCCAL? OR ?SUBLING? OR ?ENDOTRACH? OR ?AEROSOL?)
L40      12 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L39 NOT (L31 OR L27 OR L33 OR
        L36 OR L38)
L42      175 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L21 AND PD=<APRIL 10, 1997
L43      2 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L42 AND (?PARENTER? OR
        ?BUCCAL? OR ?SUBLING? OR ?ENDOTRACH? OR ?AEROSOL?)) NOT (L31
        OR L27 OR L33 OR L36 OR L38 OR L40)
L44      1 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L42 AND (TABLET OR CAPSULE)
L45      0 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L44 NOT (L31 OR L27 OR L33 OR
        L36 OR L38 OR L40 OR L43)

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L1      STR
L5      3839 SEA FILE=REGISTRY SSS FUL L1
L6      STR
L7      226 SEA FILE=REGISTRY SUB=L5 SSS FUL L6
L8      26319 SEA FILE=REGISTRY ABB=ON  PLU=ON  CYCLODEXTR?
L9      1760 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L7
L10     27247 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L8 OR ?CYCLODEXTR?
L13     3 SEA FILE=REGISTRY ABB=ON  PLU=ON  5-ANDROSTENE-3B,17.ALPHA
        .-DIOL?/CN
L14     1998 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (5(2W)?ANDROSTENE?)
L17     1153 SEA FILE=HCAPLUS ABB=ON  PLU=ON  3(2W)BETA AND 17(W)ALPHA(2W)DI
        OL?
L18     162 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L17 AND L14
L19     SEL  PLU=ON  L13 1- CHEM :      10 TERMS
L20     42 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L19
L21     188 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L20 OR L18
L22     37 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L9 AND (L10 OR CARRIER)
L26     99 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L9 AND L21
L27     2 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L22 AND L26
L28     106633 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (?TUMOR? OR ?CANCER? OR
        ?NEOPLAS?) (5A) (?MEDIC? OR ?PHARM? OR ?DRUG? OR INHIBTOR OR
        ?THERAP?)
L29     232 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L10 AND L28
L30     85 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L29 AND PD=<APRIL 10, 1997

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L31 8 SEA FILE=HCAPLUS ABB=ON PLU=ON L30 AND (?PARENTER? OR  
 ?BUCCAL? OR ?SUBLING? OR ?ENDOTRACH? OR ?AEROS?)  
 L32 706 SEA FILE=HCAPLUS ABB=ON PLU=ON L10(L) (TABLET OR CAPSULE)  
 L33 3 SEA FILE=HCAPLUS ABB=ON PLU=ON L28 AND L32 AND PD=<APRIL 10,  
 1997  
 L34 15 SEA FILE=HCAPLUS ABB=ON PLU=ON L9 AND L28  
 L35 3 SEA FILE=HCAPLUS ABB=ON PLU=ON L34 AND PD=<APRIL 10, 1997  
 L36 3 SEA FILE=HCAPLUS ABB=ON PLU=ON L35 NOT (L31 OR L27 OR L33)  
 L37 1 SEA FILE=HCAPLUS ABB=ON PLU=ON L9(L) (TABLET OR CAPSULE)  
 L38 1 SEA FILE=HCAPLUS ABB=ON PLU=ON L37 NOT (L31 OR L27 OR L33 OR  
 L36)  
 L39 13 SEA FILE=HCAPLUS ABB=ON PLU=ON L9 AND (?PARENTER? OR  
 ?BUCCAL? OR ?SUBLING? OR ?ENDOTRACH? OR ?AEROSOL?)  
 L40 12 SEA FILE=HCAPLUS ABB=ON PLU=ON L39 NOT (L31 OR L27 OR L33 OR  
 L36 OR L38)  
 L42 175 SEA FILE=HCAPLUS ABB=ON PLU=ON L21 AND PD=<APRIL 10, 1997  
 L43 2 SEA FILE=HCAPLUS ABB=ON PLU=ON (L42 AND (?PARENTER? OR  
 ?BUCCAL? OR ?SUBLING? OR ?ENDOTRACH? OR ?AEROSOL?)) NOT (L31  
 OR L27 OR L33 OR L36 OR L38 OR L40)  
 L46 5 SEA FILE=HCAPLUS ABB=ON PLU=ON L21 AND L28  
 L47 1 SEA FILE=HCAPLUS ABB=ON PLU=ON L46 NOT (L31 OR L27 OR L33 OR  
 L36 OR L38 OR L40 OR L43)

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L47 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2001:763027 HCAPLUS

DOCUMENT NUMBER: 135:318608

TITLE: Preparation of 8 $\beta$ -hydrocarbyl-substituted  
estratrienes for use as selective estrogensINVENTOR(S): Peters, Olaf; Hillisch, Alexander; Thieme, Ina; Elger,  
Walter; Hegele-Hartung, Christa; Kollenkirchen, Uwe;  
Fritzemeier, Karl-Heinrich; Patchev, Vladimir

PATENT ASSIGNEE(S): Schering Aktiengesellschaft, Germany

SOURCE: PCT Int. Appl., 90 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: German

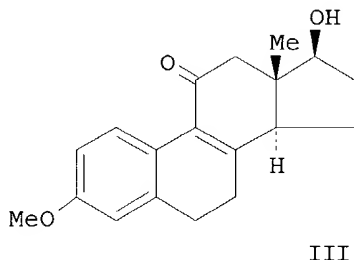
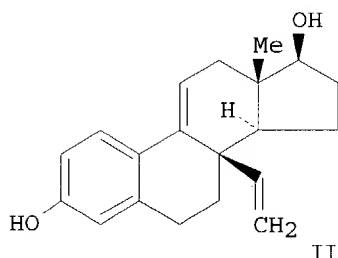
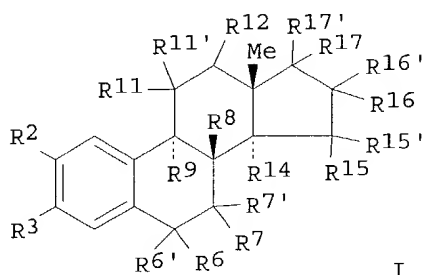
FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001077139	A1	20011018	WO 2001-EP4290	20010412
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
DE 10019167	A1	20011018	DE 2000-10019167	20000412
EP 1272504	A1	20030108	EP 2001-931609	20010412
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
BR 2001009983	A	20030225	BR 2001-9983	20010412

JP 2003534248	T2	20031118	JP 2001-575609	20010412
EE 200200589	A	20040415	EE 2002-589	20010412
BG 107173	A	20030530	BG 2002-107173	20021008
NO 2002004908	A	20021113	NO 2002-4908	20021011
US 2003176405	A1	20030918	US 2003-257288	20030401
PRIORITY APPLN. INFO.:			DE 2000-10019167	A 20000412
			US 2000-207370P	P 20000526
			WO 2001-EP4290	W 20010412

OTHER SOURCE(S): MARPAT 135:318608  
GI



AB The invention relates to novel  $8\beta$ -substituted estratrienes I [ $R_2$  = H, halogen, straight or branched (un)saturated C1-6-alkyl, alkoxy, CF<sub>3</sub>, sulfonamide;  $R_3$  = alkoxy, sulfonamide, acyloxy;  $R_6$ ,  $R_7$  = H;  $R_6R_7$  = bond;  $R_6'$ ,  $R_7'$  = H, halogen, alkoxy, sulfonamide;  $R_8$  = a straight- or branched-chained, optionally partially or completely halogenated C1-5-alkyl, alkenyl, ethynyl, prop-1-ynyl;  $R_9$  = H, straight or branched (un)saturated C1-5-alkyl;  $R_9R_{11}$  = bond;  $R_{11}$  = H;  $R_{11}R_{12}$  = bond;  $R_{11}'$  = H, halogen, a straight- or branched-chained, optionally partially or completely fluoro- or chloro-C1-4-alkyl, alkoxy, alkylthio;  $R_{12}$  = H;  $R_{14}R_{15}$  = bond;  $R_{15}$  = H;  $R_{15}R_{16}$  = bond;  $R_{15}'$ ,  $R_{16}'$  = H, halogen, alkoxy, sulfonamide;  $R_{16}$  = H;  $R_{17}$ ,  $R_{17}'$  = H, H and halogen, H and OCH<sub>2</sub>Ph, H and sulfonamide, alkyl and acyl or acyloxy, alkoxy and alkyl, alkoxy and acyloxy;  $R_{17}R_{17}'$  = :CH<sub>2</sub>, :CR<sub>24</sub>R<sub>25</sub>;  $R_{24}$ ,  $R_{25}$  = halogen;  $R_{24}R_{25}$  = O]. Thus, vinylestradiol II was prepared from estra-1,3,5(10)-tetraenone III in 8 steps. The inventive estratrienes are used as pharmaceutically active substances that have in vitro a higher affinity to estrogen receptor preps. of rat prostate than to estrogen receptor preps. of rat uterus and which in vivo preferably have a preferential effect on bone material as compared to uterus and/or a pronounced effect with respect to the stimulation of the expression of 5HT<sub>2a</sub> receptor and transporter. II showed a relative binding affinity for the estrogen receptor of 1 in rat uterus and of 83 in rat prostate. The invention further relates to the production of these novel compds., to their use in therapy and to the

pharmaceutical forms of administration that contain said novel compds. The invention further describes the use of said compds. for treating estrogen-deficiency related diseases and conditions and to the use of an 8 $\beta$ -substituted estratriene structural part in the overall structures of compds. that are characterized by a dissociation in favor of their estrogen effect on the bone as compared to the uterus.

REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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L47 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2004 ACS on STN

IT Pituitary gland, anterior lobe

(**neoplasm, medicaments**; preparation of 8 $\beta$ -hydrocarbyl-substituted estratrienes for use as selective estrogens)

IT 367929-04-2P, 3-Methoxy-8 $\beta$  -vinylestra-1,3,5(10)-trien-17 $\beta$ -ol

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent) (preparation of 8 $\beta$ -hydrocarbyl-substituted estratrienes for use as selective estrogens)

IT 26199-45-1P, 3-Methoxy-8 $\beta$  -methylestra-1,3,5(10)-trien-17 $\beta$ -ol 367264-86-6P 367264-89-9P 367929-00-8P, 3-Methoxy-8 $\beta$  -methylestra-1,3,5(10),9(11)-tetraen-17 $\beta$ -ol 367929-09-7P, 3-Methoxy-8 $\beta$  -vinyl-1,3,5(10)-trien-17 $\alpha$ -ol 367929-14-4P, 3-Methoxy-17 $\alpha$ -(trifluoromethyl)-8 $\beta$ -vinylestra-1,3,5(10)-trien-17 $\beta$ -ol

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(preparation of 8 $\beta$ -hydrocarbyl-substituted estratrienes for use as selective estrogens)

IT 3327-97-7P, 8 $\beta$ -Methylestra-1,3,5(10)-triene- 3,17 $\beta$  -diol 367264-78-6P 367264-79-7P 367264-81-1P 367264-83-3P 367264-85-5P 367264-87-7P 367264-90-2P 367264-92-4P 367264-95-7P 367929-01-9P, 8 $\beta$ -Vinylestra-1,3,5(10),9(11)-tetraene-3,17 $\beta$  -ol 367929-02-0P 367929-03-1P 367929-07-5P, 8 $\beta$ -Methylestra-1,3,5(10),9(11)-tetraene- 3,17 $\beta$  -diol 367929-08-6P, 8 $\beta$ -Ethyl-9 $\beta$ -estra-1,3,5(10)-triene-3,17 $\beta$  -ol 367929-10-0P, 8 $\beta$ -Vinyl-1,3,5(10)-triene-3, 17 $\alpha$  -diol 367929-11-1P, 17 $\alpha$ -Trifluoromethyl-8 $\beta$ -vinylestra-1,3,5(10)-triene-3,17 $\beta$  -diol 367929-12-2P, 8 $\beta$ -Vinylestra-1,3,5(10)-triene-2, 3,17 $\beta$  -triol 367929-15-5P 367929-16-6P 367929-17-7P 367929-18-8P 367929-19-9P 367929-20-2P 367929-21-3P 367929-22-4P 367929-23-5P 367929-24-6P 367929-25-7P 367929-26-8P 367929-27-9P 367929-28-0P 367929-29-1P 367929-30-4P 367929-31-5P 367929-32-6P 367929-33-7P 367929-34-8P, 8 $\beta$ -Vinyl-9 $\beta$ -estra-1,3,5(10)-triene- 3,17 $\beta$  -diol

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of 8 $\beta$ -hydrocarbyl-substituted estratrienes for use as selective estrogens)

IT 50-27-1, Estriol 50-28-2, Estradiol, biological studies 53-16-7, Estrone, biological studies 57-91-0, 17 $\alpha$ -Estradiol 446-72-0, Genistein 479-13-0, Coumestrol 521-17-5, 5-

**Androstenediol**

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(preparation of 8 $\beta$ -hydrocarbyl-substituted estratrienes for use as selective estrogens)

IT 1478-53-1, Diethyl (difluoromethyl)phosphonate 17401-32-0 367929-13-3, 3,17 $\beta$ -Bis[(tetrahydropyran-2-yl)oxy]-8 $\beta$ -vinylestra-1,3,5(10)-triene

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of 8 $\beta$ -hydrocarbyl-substituted estratrienes for use as selective estrogens)

IT 28990-61-6P, 8 $\beta$ -Formyl-3-methoxyestra-1,3,5(10),9(11)-tetraen-17 $\beta$ -ol 367264-68-4P 367264-69-5P 367264-70-8P 367264-71-9P  
 367264-72-0P 367264-73-1P 367264-74-2P 367264-75-3P 367264-76-4P  
 367264-77-5P 367264-80-0P 367264-82-2P 367264-84-4P 367264-88-8P  
 367264-91-3P 367264-93-5P 367264-94-6P 367264-96-8P 367279-41-2P  
 367929-05-3P, 3-Methoxy-8 $\beta$ -vinylestra-1,3,5(10)-trien-17-one 367929-06-4P, 3-Hydroxy-8 $\beta$ -vinylestra-1,3,5(10)-trien-17-one

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of 8 $\beta$ -hydrocarbyl-substituted estratrienes for use as selective estrogens)

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